# **OBSTETRICS & GYNECOLOGY ANUAL REPORT**



# **MADIGAN HEALTHCARE SYSTEM**

#### Madigan Healthcare System

# Letter from the Chairman

After more than a decade at war, it remains a privilege and honor to care for Warriors and their Family Members. The Department of Obstetrics and Gynecology is extremely proud to provide comprehensive women's healthcare to ensure Soldier and Family Member readiness, wellness and resiliency. Our vision is to be the nation's premier women's healthcare service, through a culture that results in the safest

patient care, and exceptional clinical outcomes through innovation, education and research. Our residents, fellows and staff have led improvements in women's health by increasing access to highly skilled and specialized services and inspiring trust through innovative programs, promoting healthy lifestyles and supporting patient education. In support of the Surgeon General's priorities and the Army Family Covenant, our focus in 2010 included maximizing the physical and psychological health of our patients, improving physician training and improving quality through outcome-focused care and services.

Improve Access and Continuity of Care/Maximize Physical and Psychological Health Promotion and Prevention. The department continued the clinical team approach to enhance access to care and continuity which has resulted in exceeding the MEDCOM access to care standards. A second women's health psychologist was added to the clinic in an effort to expand behavioral health consultation services as well as improve access, especially for our obstetric patients who have higher rates of positive depression scores on routine screening associated with a deployed spouse. Group prenatal care (Centering Pregnancy) was expanded to include physician and resident participation in response to high patient and provider satisfaction to this new form of prenatal care. We continue to emphasize the benefits of group obstetric appointments including the potential that it reduces stress by providing an internal support network. Research is underway to better understand the potential ways this form of obstetric care can improve outcomes. I invite you to read more about our innovative programs in this year's report.

**Improve Training and Development.** The American Board of Obstetrics and Gynecology site review of our proposed Reproductive Endocrine/Infertility Fellowship occurred with results of their decision expected by mid 2011. The department also received research grant money totaling \$1,484,000 and the residents, fellows and faculty published six manuscripts in peerreviewed journals, authored four textbook chapters, one textbook



and presented 26 abstracts at national meetings. In addition, our department was again honored with five awards for research presentations at the national American College of Obstetrics and Gynecology/Armed Forces District Meeting including the best resident and fellow research. Currently the department has 33 Institutional Research Board research projects: 20 ongoing, six pending approval, and seven completed.

Improve Quality, Outcome-Focused Care and Services. A team focus on improvements in patient satisfaction resulted in a 96% satisfaction with providers and an increase in overall satisfaction for services to 93.8%. The initiation of a unique and exciting project called TEAMUP for Patient Safety is designed to improve patient communication and teamwork. Results of this project will be available in 2011. In addition, in a quest to improve surgical care, we initiated participation in the Surgical Care Improvement Project, the Society for Assisted Reproductive Technologies and the National Quality Forum

Perinatal Care metrics initiatives. Evaluation of data from our department revealed that we exceeded the national average for prophylactic antibiotic use prior to hysterectomy (97% Madigan vs. 95% National average), percentage of ART cycles resulting in live births (52% vs. 41%) with lower rates of multiple gestations (28% vs. 35%), and achieved perfect compliance with antenatal steroid use (100%) and prevention of bloodstream infections in newborns (0%).

These accomplishments and more, as highlighted in this annual report, demonstrate the dedication and commitment of every member of this department. We continue to strive for excellence in support of our dedicated Warriors and Family Members to ensure the highest quality care. I invite you to read more about our services and programs and participate in the advisory council to help us improve our care as we strive to bring value and inspire trust every day.

> Peter E. Nielsen, MD, FACOG Colonel, US Army Chairman, Department of Obstetrics & Gynecology Obstetrics & Gynecology Consultant to The Surgeon General



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#### The OB/GYN Department Provides A Full Range of Obstetrical and Gynecological Care Including:

#### **Obstetrics Service**

Women may choose to see a general obstetrician/gynecologist, certified nurse midwife, or nurse practitioner for their prenatal care. Those who develop maternal or fetal complications are seen by our perinatology team consisting of six board certified maternal-fetal medicine physicians and a perinatal nurse practitioner. Our newly-remodeled birth center consists of 8 labor and delivery suites, 3 antepartum rooms, and a hydrotherapy suite. Two well-equipped operating rooms allow the obstetrics team to provide the full spectrum of procedural capability. The Obstetrics Service enhances patient satisfaction and safety through a team approach to care.

### DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

# **MISSION:**

#### Caring in Action • Demanding Excellence Improving Outcomes

The Department of Obstetrics and Gynecology (OB/ GYN) provides comprehensive women's healthcare to ensure Soldier and Family Member readiness and wellness. Our vision is to be the nation's premier women's healthcare provider, through a culture that results in the safest patient care, and exceptional clinical outcomes through innovation, education and research. We lead improvements in women's health by increasing access to highly skilled and compassionate staff and inspiring trust through innovative programs promoting healthy lifestyles and supporting patient education.



# 1,841 Births in 2010



#### **Midwifery Service**

The Midwifery Service provides a full scope, 24/7, quality women's health care throughout a woman's lifespan, including antepartum, intrapartum, postpartum, gynecologic and well woman care through clinical excellence, research, and resident and student nurse midwife and nurse practitioner education. Midwifery expertise is available for laboring patients with midwives present on Labor and Delivery for all intrapartum patients. With over 800 preceptor hours, the service is a highly sought after site for graduate nursing students from multiple institutions within Washington, as well as nationally. The service offers a wide range of perinatal care options including Centering Group prenatal care. Madigan is one of only a few military MTF's that offers Water Birth as a delivery option.

#### **Antenatal Diagnostic Center**

The center provides full consultation availability of a perinatal subspecialist 24 hours a day, seven days a week; and an ultrasound clinic staffed with 5 ARDMS OB/GYN, NTQR and Fetal echocardiography certified sonographers who perform 8-10,000 ultrasound examinations per year. Examinations performed include anatomic surveys, growth assessments, and fetal echocardiography. The unit has 3-D and 4-D ultrasound capability, Doppler, and color flow Doppler; antepartum testing including NST and biophysical profiles; genetic counseling; amniocentesis, chorionic villus biopsy and percutaneous umbilical blood sampling; as well as consultation services for the Family Practice clinic and outlying referral hospitals (Bremerton, Oak Harbor, and Alaska).

#### **Medical Genetics Service**

The Medical Genetics Service provides a full range of clinical genetics care and genetic counseling services and works closely with the Antenatal Diagnostic Center. The Genetics Service provides clinical and consultative services to patients with known or suspected genetic conditions, family histories of cancer or inherited diseases, as well as pregnant women with abnormal

#### Madigan Healthcare System

screening and diagnostic tests, ultrasound abnormalities, or who are at increased risk for inherited or genetic disorders. Care of the patient in the Genetics Service includes a detailed review of the patient's medical and family history, evaluation and possible diagnosis of genetic syndromes, genetic counseling with risk assessment for patients at increased risk for hereditary disorders and inpatient consultation as needed. In addition, the Genetics Service provides daily educational sessions to all obstetric patients regarding available prenatal screening options. Services are provided by a board certified medical geneticist and two board certified genetic counselors.

#### **Reproductive Endocrinology and Infertility Service (RE/I)**

This service offers state-of-the-art outpatient evaluation of infertility, which includes the diagnostic modalities of vaginal ultrasound, hysterosonography, hysteroscopy and hysterosalpingography. The Division of RE/I also offers evaluation and treatment of abnormalities of the reproductive endocrine systems, such as ovulation defects, hirsutism, amenorrhea, dysfunctional uterine bleeding and reproductive tract developmental anomalies. Inpatient services include operative management of



patients undergoing tubal reconstruction and and surgery for a full range of complex anomalies of the female reproductive tract. The latest advances in laparoscopic, microlaparoscopic, laser, and microsurgical reproductive tract procedures. In addition, an active coordination and assistance is available for infertile patients requiring IVF (In-Vitro Fertilization) or other advanced reproductive techniques.

#### **Robotic/Miniminally Invasive Surgery**

Madigan's laparoscopic robot allows surgeons to perform minimally invasive surgery on a variety of difficult cases where traditional laparoscopy is not an



option. Without robotic technology these cases require a large abdominal incision, often measured in inches, rather than the 3-5 small incisions associated with laparoscopy. Larger incisions are typically linked to a longer hospital stay and an extended postoperative recovery for the patient (delay in return to normal

activities, and lost days from work).

One example of the Department of Obstetrics and Gynecology's use of this technology is robotic laparoscopic hysterectomy. This is quickly becoming the standard for GYN Oncology surgeries for cancer of the uterus and cervix, where lymph node removal and/ or radical surgery is necessary, and quite difficult to do without the features of the robot. The robotic technology has also allowed Madigan's surgeons to perform difficult hysterectomy cases laparoscopically, that otherwise would have been done with an open abdominal approach (large fibroid

uterus). Other promising uses of the robot are with sacral colpopexy, myomectomy, and tubal surgery.





The Gynecology Service delivers inpatient and outpatient medical evaluation and comprehensive treatment of surgical and non-surgical gynecologic conditions. The service provides routine women's health maintenance, screening, and surveillance to active duty soldiers, Family Members, and the retired population. Definitive patient assessment, clinical and operative diagnostic studies and therapeutic management for all benign gynecologic conditions are available through the service.

#### **Gynecologic Oncology Service**

The Gynecologic-Oncology Service provides clinical and consultative services to patients with known or suspected gynecologic malignancies. Care of the gynecologic oncology patient includes: the diagnosis and staging of gynecologic malignancies, performing surgical therapy as appropriate, and providing chemotherapeutic interventions. Candidates for whom radiation therapy is to be incorporated into the treatment regimen are discussed on an individual basis with the Radiation Therapy Service. Patients with unclear diagnoses or other primary tumors involving the pelvis are managed jointly with the service coordinating care.

#### Urogynecology & Pelvic Reconstructive Surgery Service

The Urogynecology & Pelvic Reconstructive Surgery Service offers diagnosis and therapy for a variety of pelvic floor disorders, including urinary incontinence, pelvic prolapse, overactive bladder, anal incontinence, vaginal fistula, sexual dysfunction, and pelvic pain. Advanced surgical and non-surgical treatment with latest technology is used. A state-of-the-art pelvic floor diagnostic laboratory offers urodynamic studies, endoanal and vaginal ultrasound, and cystoscopy.



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REI Service IVF (In-vitro fertilization) program data:



IVF fresh cycle starts

### Fresh Cycle Starts for 2010

### Overall Pregnancy Rate:



Pregnancy Rate (fresh IVF cycles). (*National* highest average reported as of 2006 is 40.7%)

We are scheduled for just over 100 cycles in 2011 with anticipated expansion to 125 cycles in 2012.

#### **Certifications:**

**Col. Nielsen** – ACOG Postgraduate Course Instructor: Obstetric Emergencies Simulation, ACOG/Annual Clinical Meeting 2010. ACOG/AFD Secretary/ Treasurer, 2010-present.

LtCol.Shad Deering, MD – Medical Director, Andersen Simulation Center; Chairman, Central Simulation Committee. Andersen Simulation Center becomes first institution in the DoD to become accredited by the Society for Simulation in Healthcare.

**Rebecca Cypher, MSN, PNNP** elected member of the 2010-2011 Board of Directors for the Association of Women's Health, Obstetric and Neonatal Nurses.

**Rebecca Cypher, MSN, PNNP** member of the Washington State Perinatal Advisory Committee.

**Rebecca Cypher, MSN, PNNP** was invited to lecture in Okinawa Japan on fetal monitoring to staff members at Naval Hospital Okinawa and the Japanese Nursing Association.

**LtCol. Richard Burney** deployed to Iraq as physician/ surgeon for 6 month tour.

Two MAMC OB/GYN 4th year residents were selected for RE/I fellowship programs ( **Cpt. Ryan Heitmann** – USUHS and **Cpt. Kyle Tobler** – Johns Hopkins).

Former MAMC resident (**Maj. Christine Vaccaro**) continues her 3rd year of URO fellowship at Good Sam hospital, Cincinnati.

Former MAMC resident (**Maj. Jasmine Han**) continues her 2nd year of ONC fellowship at NCC-WRAMC.

Former MAMC resident (**Cpt. Karen Wilson**) continues her 2nd year of MFM fellowshi\p at Univ. of Texas, Southwestern.

One former MAMC OB/GYN resident ( **Cpt. Rhianna Saunders**) continues in her 2nd year of RE/I fellowship at the University of Louisville.

**REI Fellowship application** was submitted to the American Board of Obstetrics and Gynecology (ABOG).

**ABOG Site-**Visit granted in September 2010. This was a major advancement in the REI fellowship application process and signifies a solid application presented to the Board. The Board's decision is anticipated in April 2011.

There has been significant progress in the **Department Expansion Project.** Construction is now in its final stages and the REI department is scheduled to move in January.

#### **Promotions**

**LtCol.(P) Michael Chinn** was promoted to Col. April 2010.

Maj.(P) Jason Pates, Maj.(P) Lisa Foglia, Maj.(P) Jennifer Gotkin was promoted to LtCol. in 2010.

**Dr. David Magelssen** received promotion to full clinical Professor, Department of Obstetrics and Gynecology, University of Washington School of Medicine.

#### **Awards**

Cpt. Ryan Heitmann awarded Army Achievement Medal.

**Maj. Ronald Beesley** completed REI fellowship at the University of Vermont.

**Maj. Beesley** attended the Hospital Executive Leadership Program at MAMC November 2010.

**Dr. Greg Chow** received specialty board re-certification (OB/GYN).

**LtCol. Richard Burney** received subspecialty board certification (RE/I).

**LtCol. Richard Burney** received Meritorious Service Medal for service in Operation Iraqi Freedom/Operation New Dawn.

**LtCol. Richard Burney** was awarded the 2010 BG George Brown Mentor's Cube for Outstanding Faculty

Research Mentor, MAMC.

#### Armed Forces District 2010 Founders Award

- best scientific paper on a basic science project; also selected as best overall paper at the meeting and will be forwarded for consideration for the national award at the Annual Clinical Meeting of ACOG. Title: PGRMC1 and PGRMC2 expression is significantly decreased in the endometrium of women with endometriosis. Authors: Cpt. Kristen Bunch MD, Ms Deborah Tinnemore BSc, Mr Seth Huff, BSc, Cpt. Zachary Hoffer, MD, PhD, LtCol. Richard Burney MD, MSc, Cpt. Jonathan Stallings PhD.

Armed Forces District 2010 Chairman's

**Award** – best paper from a teaching hospital. Title: A cytoarchitectural analysis of the effects of cigarette smoke exposure on human oviductal epithelium. Authors: Cpt. Bruce Pier MD, Ms Laurel Huston MSc, Cpt. Karen Wilson MD, Cpt. Karen Strenge MD, Cpt. Zoe Sundell MD, LtCol. Richard Burney MD, MSc

Armed Forces District 2010 Resident Award – one of three awards presented to papers submitted from a teaching hospital with a resident as primary author. Title: CYP26A1 expression is progesterone dependent and dysregulated in women with endometriosis. Authors: Cpt. Samuel Han MD, Ms Laurel Huston MSc, Dr Greg Chow MD, LtCol. Richard Burney MD, MSc

Armed Forces District 2010 Outstanding Fellow Award – The Kinetics of Matrix Metalloproteinase-9 Inhibition by Magnesium Sulfate in Fetal Cord Plasma. Authors: Maj. Brad Dolinsky, Dr Ippolito D, Ms. Deborah Tinnemore, Cdr Craig Zelig CM, Cpt. Jonathan Stallings, MC, Col Peter Napolitano.

The **In-Vitro Fertilization program at MAMC** continues to expand. There were 43 IVF fresh cycle starts in 2009 with an overall pregnancy rate of 49%. There were 97 fresh cycle starts for 2010; pregnancy rates pending. In keeping with the demand, we are scheduled for just over 100 cycles in 2011 with anticipated expansion to 125 cycles in 2012.

#### **Staff Changes:**

Stacie Large RN- Supervising RN, Marianne Russell RN- Asst. Nurse Manager arrived OB/GYN Clinic.

Cpt. Nicole Simpson, Maureen Dewey, RN, Michelle Bogle, LPN added to REI department staff.

Cindy Pike- LPN- Lead LPN/Education/ Staff Coordinator.

Maj. Ronald Beesley arrived as Chief, REI.

#### **Publications:**

Smith DC, Munroe, ML, Foglia LM, Nielsen PE, Deering SH. Effects of Deployment on Depression Screening Scores in Pregnancy at an Army Military Treatment Facility. Obstet Gynecol 2010;116:679-84.

**Deering SH, Tobler K, Cypher RL.** Improvement in Documentation Utilizing an Electronic Checklist for Shoulder Dystocia Deliveries. Obstet Gynecol July 2010; 116(1):63-66.

Guise JM, Lowe NK, Deering S, Osterweil BS, O'Haire C, Irwin L, Blaser M, Meteer L, Kanki B. Mobile in-situ obstetric emergency simulation and teamwork training to improve maternal-fetal safety in hospitals. Joint Commission Journal (in press)

**Deering SH, Weeks L, Benedetti T.** Evaluation of force applied during deliveries complicated by shoulder dystocia using simulation. Amer J Obstet Gynecol (in press)

**Deering SH, Johnston LC, Colacchio K.** *Multidisciplinary Teamwork and Communication Training*. Seminars in Perinatology (in press)

**Deering SH.** Andersen Simulation Center at Madigan Army Medical Center. J Surg Educ Nov-Dec 2010, 67(6):457-460.

Pates JA, Hatab MR, McIntire DD, Cunningham FG, Twickler DM. Determining uterine blood flow in pregnancy with magnetic resonance imaging. Magn Reson Imaging. 2010 May;28(4):507-10.

#### **Book Chapters:**

**Deering, S. Seiken G.** *Acute renal failure in pregnancy.* In: Critical Care Obstetrics 5th ed., Belfort M, Editor, Blackwell Science, Inc, 2010.

**Deering, S. Seiken G.** *Dialysis in pregnancy*. In: Critical Care Obstetrics 5th ed., Belfort M, Editor, Blackwell Science, Inc, 2010.

**Burney RO, Giudice LC.** *Transcriptomics in Endometriosis.* In L Giudice (ed). Endometriosis. 1st Edition. In press.

**Giudice LC, Swiersz LM, Burney RO.** *Endometriosis.* In L Degroot and J Jameson (eds). Endocrinology. 6th Edition. Saunders. In press.

#### **Research Grants:**

**Deering S.** Expansion of the Mobile Obstetric Emergencies Simulator project. Tricare Management Activity. (\$665,000) 2009-2010.

**Deering S, Roth B.** Individual provider training after deployment and integration of TeamSTEPPS training and simulation. (\$799,000) Congressional Grant in conjunction with University of Washington, 2010.

**Deering S.** Development of a Safe Cesarean Section Checklist. Tricare Management Activity. (\$20,000)

#### **Research/Presentations:**

**Nielsen PE.** Teamwork training in obstetrics. Presented at the 1st European Conference on Simulation in Women's Health and sponsored by the Royal College of Obstetricians and Gynaecologists, London, England, February, 2010.

**Batig TS, Cypher RL, Nielsen PE.** Fetal heart rate patterns in term nulliparous females in active labor. Presented at the 58th Annual Clinical Meeting/ACOG, May, 2010.

**Flood-Nichols S,Deering SH, Nielsen PE.** A novel approach to planned Cesarean hysterectomy. Presented at the 49th Annual Meeting of the Armed Forces District/ACOG, October, 2010.

**Nielsen PE.** Electronic Health Records. Presented at the WA (conference presentation) Annual Meeting of District II/ACOG, New York City, NY, October, 2010

Deering SH, Burgess D, King H, Liu A, Muniz G, Parodi A, Robinson D. Medical Simulation: Practicing to be expert teams. Military Health System Conference, National Harbor, MD, January 25-29, 2010. (Panel presentation)

Satin AJ, Brost B, Deering SH, Bienstock J, Bernstein P. Simulation for Maternal-Fetal Medicine: A practical introduction for implementing a program for education and practice. SMFM Annual Meeting, February 2-6, 2010. (Postgraduate course)

Deering S. (Course Director). Central Simulation Committee Simulation Instructor Course. Uniformed Services University Simulation Center, Washington DC, April 27-28, 2010.

Deering S. (Course Director) "Obstetric Emergencies - A Hands-On Simulation Course" taught at the 58th Annual Clinical Meeting for the American College of Obstetricians and Gynecologists. San Francisco, CA, May 15-18, 2010.

Kenyon D, Thomson S, Deering S. Obstructing vaginal septum diagnosed during second stage of labor: A case report and literature review. ACOG Armed Forces District Annual Meeting, October 17-20, 2010, San Antonio, TX. (Poster Presentation)

Deering S, Roth B, Lesperance R, Rush RM. Perceived effects of deployment on surgeon and physician skills in the Army Medical Department. North Pacific Surgical Association Meeting, November 12-13, 2010, Tacoma, WA. (Oral Presentation)

Mr Larry Whorley BSN, Nurse Manager, Dept of OB/GYN, selected to present at the 2010 AWOHNN National Convention, Las Vegas, Nevada, in September 2010. Presented topics on "Patient Centered Care" and improving health outcomes and education in an Obstetric Clinical setting.

Cypher, R. "Sacred Perinatal Cows: Where's the Pasture?" presented at the Southwest Puget Sound Perinatal Consortium Annual Meeting, March 19, 2010; Tacoma,

Cypher, R. "A New Frontier in EFM Theory & Practice: ST Analysis of FHR" presented at AWHONN National Convention; Las Vegas, Nevada; September 25-29, 2010

Cypher, R. "The Rebirth of an Old Medication: Progesterone Therapy for Prematurity Prevention" presented at Pacific Northwest 33rd Annual National Conference on Advanced Practice in Primary and Acute Care; Seattle, WA, September 29- October 2, 2010. 2010 Armed Forces District Meeting of ACOG; San Antonio, TX, October 17-20, 2010.

Beesley R. presented on current topics for fertility preservation in cancer patients. Annual Seattle Tacoma Area Reproductive Society, Seattle, WA September 2010.

Chow GE presented "Updates in evaluation and management of the infertile couple" Women's Health Conference, Seattle WA, October 2010.

Burney RO. presented talk entitled Ethical Considerations of Third Party Reproduction. Delivered at Hospital Ethics Forum at Madigan Army Medical Center, May 26, 2010.

Grant MA, Chow GE, Burney RO. Evaluation of ovarian reserve following tubal sterilization using antimüllerian hormone. Oral presented at the 2010 Madigan Research Day, Tacoma, WA, April 30, 2010.

Heitmann RJ, Burney RO, Chow GE. Elective single embryo transfer (eSET) versus double embryo transfer (DET): evaluation of pregnancy and multiple gestation rates. Poster presented at the 2010 Madigan Research Day, Tacoma, WA, April 30, 2010.

Estrada S, Stallings JD, DeHart MJ, Chow GE, Burney RO. Calprotectin as an endometrial biomarker for the diagnosis of endometriosis. Poster presented at the 2010 Madigan Research Day, Tacoma, WA, April 30, 2010.

Heitmann RJ and Burney RO. Progesterone supplementation in a pregnancy with inappropriately rising quantitative HCG levels. Poster presented at the 2010 Madigan Research Day, Tacoma, WA, April 30, 2010. Burney RO and Heitmann RJ. Premenstrual spotting

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of two or more days is strongly associated with endometriosis. Poster presented at the 2010 Madigan Research Day, Tacoma, WA, April 30, 2010.

**Bunch K, Tinnemore D, Huff, S, Hoffer ZS, Burney RO, CPT Stallings JD.** PGRMC1 and PGRMC2 expression is significantly decreased in the endometrium of women with endometriosis. Oral presented at the 2010 Armed Forces District meeting of ACOG, San Antonio, TX 12-17 Oct 2010.



**Pier B, Huston L, Wilson K, Strenge K, Sundell Z, Burney RO.** A cytoarchitectural analysis of the effect of cigarette smoke exposure on human oviductal epithelium. Oral presented at the 2010 Armed Forces District meeting of ACOG, San Antonio, TX 12-17 Oct 2010.

Han S, Huston L, Chow GE, Burney RO. CYP26A1 expression is progesterone dependent and dysregulated in women with endometriosis. Oral presented at the 2010 Armed Forces District meeting of ACOG, San Antonio, TX 12-17 Oct 2010.

**Dolinsky, Brad M, Zelig CM, Napolitano PG.** The Effect of Taurocholic Acid on Fetoplacental Arterial pressures in a Dual Perfusion Placental Cotyledon Model: A Novel Approach to Intrahepatic Cholestasis of Pregnancy. 49th Annual Armed Forces District Meeting of the American Congress of Obstetricians & Gynecologists. San Antonio, TX. October 2010.

**Gotkin Jennifer L, Ippolito D, Stallings J, Napolitano PG.** P4 Suppresses the Maternal Inflammatory System through a Genomic Mechanism. 49th Annual Armed Forces District Meeting of the American Congress of Obstetricians & Gynecologists. San Antonio, TX. October 2010.

Zelig, Craig M, Flood-Nichols SK, Dolinsky BM, Hecht MW, Napolitano PG. The Effect of Maternal Obesity on the Predictive Value of the Bishop Score in Term Nulliparous Patients Undergoing Induction of Labor. 49th Annual Armed Forces District Meeting of the American Congress of Obstetricians & Gynecologists. San Antonio, TX. October 2010.

**McCaulley, Jill A, Pates JA.** Cerebral Venous Thrombosis in the Postpartum Period. 49th Annual Armed Forces District Meeting of the American Congress of Obstetricians & Gynecologists. San Antonio, TX. October 2010.

Kenyon D, Thomson S, Deering S. Obstructing vaginal septum diagnosed during second stage of labor: A case report and literature review. 49th Annual Armed Forces District Meeting of the American Congress of Obstetricians & Gynecologists. San Antonio, TX. October 2010.

#### **Research Studies Approved by MAMC IRB**

**Protocol Title:** Quality Outcomes Measures in Obstetrics: Analysis of the Adverse Outcomes Index Before and After Implementation of TeamSTEPPS<sup>™</sup> Training in Labor and Delivery. Principal Investigator COL Peter Nielsen.

**Protocol Title:** A Phase 3B, Multi-Center, Randomized, Double-Blinded Study of Hydroxyprogesterone Caproate Injection, 250MG/ML, Versus Vehicle for the Prevention of Preterm Birth in Women with a Previous Singleton Spontaneous Delivery. Principal Investigatory COL Peter Nielsen.

**Protocol Title:** TEAM-UP: An intervention to include patient/family as part of the healthcare team for their birthing experience. Principal Investigator COL Peter Napolitano.

**Protocol Title:** Randomized controlled Trial of Endurance Exercise and Gallbladder Disease Risk in Overweight Pregnant women. Principal Investigator COL Peter Napolitano. **Protocol Title**: Proteomic Analysis of High- Risk Patients On 17 Alpha-Hydroxyprogesterone Caproate and Micronized Progesterone for Prevention of Preterm Delivery. Principal Investigator COL Peter Napolitano.

**Protocol Title:** Evaluating Team Performance in the Management of Postpartum Hemorrhage Using Simulation Training. Principal Investigator LTC Shad Deering. **Protocol Title:** Prospective Investigation of Birth Weight and Macrosomia Prediction Using a Correction Factor to the Gestation Adjusted Projection (GAP) Method. Principal Investigator MAJ Brad Dolinsky.

**Protocol Title:** Effect of Magnesium Sulfate on Matrix Metalloproteinase 9 Activity in Fetal Cord Plasma. Principal Investigator MAJ Brad Dolinsky.

**Protocol Title:** Prospective Investigation of the Effect of 17-Alpha Hydroxyprogesterone Caproate on Vascular Resistance in the Uterine, Umbilical and Fetal Middle Cerebral Arteries of the Gravid Patient. Principal Investigator MAJ Brad Dolinsky.

**Protocol Title:** Predictive Value of Bishop score During Induction of Labor (IOL) of the obese primagravida. Principal Investigator MAJ Shannon Flood-Nichols.

**Protocol Title:** The Use of Selective Serotonin-Reuptake Inhibitors in Pregnancy and the Risk of Persistent Pulmonary Hypertension in the Neonate. Principal Investigator CDR Craig Zelig.



**Protocol Title:** Induction of Nulliparous Labor: A Randomized Clinical Trial. Principal Investigator MAJ Nathaniel Miller.

**Protocol Title:** Simulation Training for Genetic Screening Testing and Amniocentesis Principal Investigator MAJ Nathaniel Miller.

**Protocol Title:** Proteomic Analysis of Longitudinally-Collected Maternal Plasma Samples: Establishing the "Pregnancy Proteome". Principal Investigator Dr. Ippolito

**Protocol Title:** Outcomes of a Prenatal Genetic Education Program in a Military Population. Principal Investigator Ms. Dana Knutzen, GC

**Protocol Title:** Gene and protein discovery in endometrium and endometriosis. Principal Investigator LTC Richard Burney

**Protocol Title:** A Cytoarchitectural and molecular analysis of the effects of cigarette smoke exposure on human oviductal epithelium. Principal Investigator LTC Richard Burney

**Protocol Title:** FSH/LH Ratio ratio > 2.5 as a predictor of mature oocyte yield. Principal Investigator Dr. Gregory Chow

**Protocol Title:** Premenstrual spotting as a marker for endometriosis. Principal Investigator LTC Richard Burney

**Protocol Title:** Evaluation of ovarian reserve following tubal sterilization using anti-müllerian hormone. Principal Investigator CPT Melissa Grant

**Protocol Title:** Elective single embryo transfer (eSET) vs double embryo transfer: evaluation of pregnancy and multiple gestation rates. Principal Investigator Dr Gregory Chow.



# INNOVATIVE PROGRAMS

**Patient and Family-Centered Care (PFCC)** can be best defined as "an innovative approach to the planning, delivery, and evaluation of healthcare that is grounded in mutually beneficial partnerships among patients, families, and providers." Information sharing and collaboration between patients, families and healthcare staff are the cornerstones of patient- and

family-centered care. Individuals and families are encouraged to participate in experiences which help define policy and program development. They bring different perspectives and timely feedback and ideas to the table, which benefit everyone.

#### The Institute For Family-Centered Care (IFCC)

is a nonprofit organization based in Bethesda, Maryland. This institute has contracted to assist military treatment facilities in advancing the practice of Patient and Family Centered Care. The IFCC offers several conferences each year which teach these principles. Each year they host a seminar. More information about the Institute for Family Centered Care can be found on their website: www.familycenteredcare.org

**The Stork Advisory Council** consists of OB-GYN staff, patients, and families who volunteer their time to promote positive relationships, and bring about



Images from the water birth delivery room

improvements within the OB/GYN Department. They work to encourage a family-centered care atmosphere in order to achieve their goals and objectives. Patients conduct their own meetings with staff members functioning as advisors.

**CenteringPregnancy® Program** or Group Prenatal Care alters routine prenatal care by placing women in groups for appointments based on similar due dates. Women have their intake into obstetric care in the usual manner, then are invited to join with 8-12 other expectant mothers with similar due dates in meeting together regularly throughout their pregnancy. The Centering group participates in discussing topics of interest related to pregnancy, childbirth, parenting, and personal growth. Meeting with the same group has many advantages, with the sharing and development of a support network that often extends well into the childrearing period.

# DEPT. OF OB/GYN Quality Data Programs

The Department of Obstetrics and Gynecology believes in delivering high quality care for their beneficiaries. The foundation for our clinical care rests on best evidence and data on which clinical policies and guidelines can be based. Madigan participates in several national and local quality databases, which are available at your interest/ request. Two national databases are described below:

### National Perinatal Information Center (NPIC)

• National non-profit organization for analysis on cost, management and outcomes of perinatal services, evaluation of health services, analysis of major policy issues in reproductive and family health care, and provides comparative reports.

• Voluntary national participation by civilian hospitals and Military Treatment Facilities (MTFs) providing perinatal care

• Provides quarterly benchmarking reports and a series of specialty reports

• The key data sets used are the Standard Inpatient Data Record (SIDR) and the Standard Ambulatory Data Record (SADR). All data extracted from these data sets are



covered by a Data Use Agreement (# 151C-2) executed by NPIC/QAS and the TMA Privacy Office.

• Available at www.npic.org/contracts/QualityIndicators.

- Data examples:
  - -Quarterly workload
  - -Complication rates
  - -Linked Trend analysis
  - -Maternal Obesity and complications

of mothers, fetus and newborn



#### **Perinatal Core Measures**

- National Quality Forum (NQF) Endorsed Voluntary Measures for Hospital Care
- Mandatory reporting by The Joint Commission
- Based on current state of best practice for effective care
- National Benchmarking with civilian organizations
- Publically reported for consumer information at www.qualitycheck.org/consumer/searchQCR.aspx
- Available at www.jointcommission.org/perinatal\_ care/

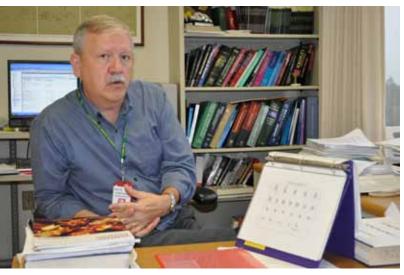
For further information, contact Dr. Eileen Hemman, Perinatal Outcomes Research Nurse (253) 968-5115

# **Articles of Interest**

#### **GENETICALLY SPEAKING:** The future of gene research

#### By: Tawny M. Dotson

The doctor explained the risks and certain words started to stick out. Surgery...cancer... children. It's difficult to imagine what it would feel like to have cancer at a young age with children at home. However, genetic testing can offer patients a chance to avoid that situation and it could make all the difference in the world for their health care.



Dr. Michael McClellan, chief of the Medical Genetics Service at Madigan Army Medical Center, discussed the breast cancer susceptibility genes, referred to as BRCA 1 or 2. This is just one of the more common tests he completes for his mostly adult patient population. When identified as a carrier of a BRCA gene mutation it is believed that a person carries a greater than 50 percent lifetime risk of developing breast cancer and the risk can extend to ovarian cancer as well. Genetic testing, through services McClellan provides, can assist patients with understanding certain risk factors and their providers with planning for future care.

"It's not always as simple as a blood test," said McClellan. "Our job is to determine when testing is useful and could affect a patient's long term health care."

A majority of the genetic services patient base comes from Obstetrics patients who are offered genetic screening as a part of their prenatal care. Although McClellan focuses on adults, Dr. Mark Stephan, a developmental pediatrician, provides services for pediatrics. Genetic testing can provide information identifying patient risk levels. Diseases such as breast cancer, Marfan syndrome, Neurofibromatosis, and Huntington's disease carry a higher risk for patients who test positive for their associated genetic mutations.

"Carrying a genetic mutation does not mean you have the disease," said

McClellan. "It just means you carry a higher risk."

While genetics testing does not always provide a concrete diagnosis of a disease, it does assist both the provider and beneficiary with care plans and preventative options that might positively impact the patient's future. After testing is complete a genetics counselor meets with the patient to understand risks, care options, future considerations, and provide an understanding of technologies available for their care.

For instance, identifying patients who carry the BRCA 1 or 2 gene mutations can provide the patient with the option of risk-reducing surgical procedures or screening options not typically considered for patients who have not been identified as being at-risk. Those screenings could assist with prevention of the disease. Recent articles in the Journal of the American Medical Association have shown a benefit to genetic testing and risk-reducing procedures in patients. Studies of a group of 2,500 women who were diagnosed with BRCA gene mutations and underwent risk-reducing or preventive procedures showed the women were less likely to be diagnosed with breast cancer.

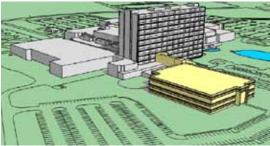
According to the National Human Genome Research Institute, while most Americans are optimistic about the use of genetic information to improve health, many were concerned that genetic information may be used by insurers to deny, limit or cancel health insurance, and by employers to discriminate in the workplace. So, in 2008, the Genetic Information Non-Discrimination Act was passed. GINA protects Americans against discrimination based on their genetic information when it comes to health insurance and employment. The measure, which had been debated in Congress for many years, paved the way for people to take advantage of genetic testing.

For more information or a referral to the Medical Genetics Service patients can contact their primary care physician.

#### Maternal Infants Pavilion plan makes progress

A team from the Health Facilities Planning Agency out of MEDCOM headquarters visited Madigan Healthcare System in late January to conduct a planning

exercise with Madigan staff to firm up plans for the proposed Maternal Infant Pavilion (MIP). The outcome of this visit that included interviews with the command team, facilities, resource management and the OB/GYN department was a better defined plan for the MIP.



Conceptual drawing of Maternal Infant Pavilion

The MIP, which will be nestled between the Nursing Tower, Jackson Avenue and the south parking lot, is estimated to cost \$196 million. It is planned to be three stories with 159,000 square feet of primary and special-

#### Mobile Obstetric Emergencies Simulator

By: Lorin T. Smith

In order to cut costs in the ever-growing price of health care, one doctor at Madigan Healthcare System has developed a \$20,000 simulator that could save the federal government millions.

The Mobile Obstetric Emergencies Simulator is a cutting-edge technology project and can potentially save the Department of Defense millions of dollars in malpractice suits, especially when it only costs \$20,000 to develop and \$500 a year to maintain.

Designed by Lt. Col. (Dr.) Shad Deering and the staff at the Charles Andersen Simulation Center, MOES is expected to reduce obstetric legal claims for the DoD, and avoid deaths linked to maternal emergencies. And Deering might earn a patent for his efforts, as his invention is under review right now by the U.S. Army Medical Research and Materiel Command in Maryland.

The simulator is a full-size birthing mannequin and system that can show maternal and fetal vital signs and simulate the most common obstetric emergencies in a realistic manner. Doctors, nurses and technicians on Madigan Healthcare System's Labor and Delivery ward use the "mechanical mom" to evaluate and educate residents and staff on situations that can arise during a delivery like post-partum hemorrhaging (the number one cause of obstetric death), fetal distress requiring an operative delivery by either forceps or vacuum or neonatal resuscitation, where a baby is born not breathing. ty care for women and infants including examination and operating rooms, clinical space, birthing suites and a neo-natal intensive care unit.

The biggest change to the previous plan was the incorporation of a subterranean two-level parking garage ad-

> jacent to the MIP with enough room for 486 parking spaces. This change will reduce the walking distance for patients using the planned connecting corridors to the ground, first and second floors of medical center.

In an exit briefing to Madigan's Command Team, the visiting health facilities planning team reported that the MIP would be recommended as

a priority project for funding and construction in fiscal year 2012. If this happens, the MIP could be completed and ready to see patients by mid 2015.

The MOES program is more than just a birthing simulator. Every Department of Defense hospital that conducts deliveries and the University of Washington Medical Center are using the program. They have descended upon Madigan Annex for a two-day training course to learn how to implement this at their location. The training also served as a great opportunity to teach communication improvement techniques like Team Strategies and Tools to Enhance Performance & Patient Safety (TeamSTEPPS<sup>™</sup>). "Communication errors are the root cause of 60 to 70 percent of adverse outcomes," Deering said. "It only makes sense to focus our efforts and resources on that."

OB/GYN residents can learn how to address situations they'll see as staff in a no-risk environment. Residents are not allowed to perform deliveries on real patients when emergencies occur, so the simulator provides hands-on practice for real-life situations. "It allows them to get their hands in there and know what each emergency or complication feels like," he said.

Madigan is at the forefront of simulation training for obstetric emergencies, as physicians have published multiple papers in leading scientific journals describing its use to improve physician performance during obstetric emergencies and fetal outcomes. "This position affords us the unique opportunity and obligation to utilize our expertise in this area for the purpose of improving patient safety, training better physicians and as our ultimate goal, obtain the optimal outcomes for our patients regardless of their situations," Deering said.

# Charles A. Andersen Simulation Center



#### Training Today Saves Lives Tomorrow

The Charles A. Andersen Simulation Center (Andersen Sim Center or sim center) has a dual mission to support Graduate Medical Education/Nursing and Medic training in the Madigan Healthcare System through simulation based medical training. The sim center also supports thetraining of health care professionals within the Western Region Medical Command. Established in May of 2002 the simulation center's success and the training of deploying medical personnel has required an increased in size from 1,100 square feet to over 8,000 square feet of training space within the original Madigan General Hospital structure (also known as the Madigan Annex). More than 29,000 medical personnel have received training at the Andersen Sim

*"Research and the advancement of the simulation field is a major focus at the Andersen Simulation Center."* 

Center since its inception, and more than 6,800 in 2008 alone. Training at the sim center ranges from basic medical skills training to full blown trauma scenarios including ACLS, ATLS, and PALS training programs. The center's staff also supports off-site training to units during field exercises.

Professionals at Madigan Army Medical Center also work with the Medical Simulation Training Center (MSTC) in combined training activities to address transfer of care of the wounded soldier across the various echelons of care.

#### Andersen Simulation Center objectives:

- Promoting patient safety through realistic simulated training.
- Providing simulated training that enhances efficiency and competency.
- Instill confidence and increase skill levels in medical treatment for deploying soldiers.
- Increase communication, teamwork and critical thinking skills by promoting TeamSTEPPS training.
- Instill confidence and increase skill levels in medical treatment for deploying soldiers.
- Oversee the implementation of the Central Simulation Committee to provide cutting edge GME training as ReDeployment opportunities for returning providers.



### Mobile Obstetric Emergencies Simulator (MOES)

The Andersen Simulation Center has been designated a Center of Excellence by Tricare Management Activity (TMA) for its work in the integration of simulation and TeamSTEPPS<sup>®</sup> training. With funding from TMA, Madigan has developed a Mobile Obstetric Emergencies Simulator (MOES) for which the Army has filed a patent application.

This MOES simulator facilitates a variety of validated obstetric emergency simulations in the Labor and Delivery unit. The scenarios improve readiness and increases patient safety for both the mother and infant. MOES integrates evidence-based practice recommendations with TeamSTEPPS' principles of communication and teamwork, involving the entire patient care team.

The success of the Andersen Sim Center's MOES led to the deployment of eight additional units to facilities within the DoD by the end of 2007. This effort earned Madigan the 2007 DoD Patient Safety Award for Technology.

This project alone received over \$1.5 million dollars in funding, and now all 54 sites that provide obstetric care within the Army, Navy and Air Force have been trained on and have received the MOES system.

#### **Central Simulation Committee:**

The Andersen Sim Center embarked on an initiative to create a Central Simulation Committee (CSC) for 10 different medical specialties that trains residents at the 10 Army Military Treatment Facilities. This was proposed as a method to address new GME training requirements as well as the pressing needs of our providers returning from Deployment with regards to skills degradation. In addition to creating a standardized state-of-the art simulation curriculum and centralized electronic evaluation system, the CSC was designated to assist in the redeployment training of Army providers ensuring that any retraining issues are addressed in the safety of a simulation rather than with live patients.

The CSC has expanded over the past year and now covers 12 specialties and remains headquartered at the Andersen Simulation Center with LTC Shad Deering as the Chairman of the CSC. The number of providers trained has continued to increase with approximately 30,000 providers trained in 2010 alone.

#### **Publications & Presentations:**

Since 2002, the staff and teaching faculty at the Andersen Simulation Center has contributed to more than 30 peerreviewed publications and participated in nearly 100

#### Continued on page 20

#### Simulation Center... continued from page 19

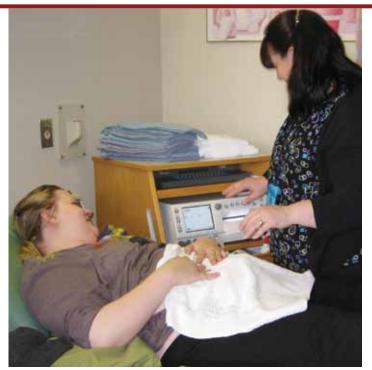
presentations at local and national meetings relating to medical simulation and education. Madigan's staff and educators have been invited to conduct simulation training workshop national meetings in Family Medicine, OB/ GYN, and Internal Medicine. In addition, the Andersen Simulation Center has managed over \$8 million in grants and special projects, and supports an annual Simulation Research Award at Madigan's Annual Research Day.

The Andersen Simulation Center is also working with several national specialty organizations in the field of simulation. LTC Deering has been selected as the Simulation Subcommittee Chair for the Society for Maternal Fetal Medicine and as the Obstetric Simulation Subcommittee Chair for the American Congress of OB/ GYN.



The ASC was also accredited by the Society for Simulation in Healthcare (SSIH) in May 2010 in the first year this was offered. This includes not only the core accreditation, but also the additional four areas of Assessment, Research, Education, and Systems Integration & Patient Safety. The ASC was the only institution to receive all four levels in the initial round of accreditation.

In 2010, the ASC was also reaccredited by the American College of Surgeons and is the only institution in the DoD to be accredited by both the ACS and the SSIH.



The Obstetrics & Gynecology Residency Program at Madigan Army Medical Center (MAMC) is one of the premier post-graduate medical teaching centers in the military.

The Andersen Simulation Center recently became the first DoD institution to be accredited by the American College of Surgeons as a Level I Educational Center, one of only approximately 40 worldwide to

receive this honor.

OB/GYN GRADUATE MEDICAL EDUCATION

a combination of conferences and lectures provided by staff, residents, and renowned guest lecturers through the Visiting Professor Program. Residents participate in about ten surgery/ skill labs per year with state of the art models and equipment at the Anderson Simulation Center.

With the large active-duty, Family member and retiree population in the area, our residents see many complicated obstetric and gynecologic cases. The majority of the residency rotations take place at Madigan. Residents also rotate at

The OB/GYN Residency program at Madigan has a long tradition of training exceptional physicians. It has been continuously accredited for 54 years and the most recent ACGME accreditation cycle was for five years, training four residents per year. The program maintains a strong emphasis on clinical medicine and research.

At the 2010 ACOG Annual Armed Forces District Meeting, Madigan won 50% of the awards, including the best research project.

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The Department of Obstetrics and Gynecology is dedicated to providing the highest quality of care to all DOD beneficiaries, while simultaneously training our residents in the principles of Obstetrics and Gynecology.

The training experience at Madigan combines didactic education with exposure to a broad spectrum of outpatient and inpatient experiences. Wednesday mornings are devoted to didactic learning. The sessions involve Tacoma General Hospital and Swedish Medical Center, in Seattle, for twelve weeks each.

Madigan boasts a world class Maternal-Fetal Medicine Fellowship. This fellowship has been continuously accredited for the past 31 years and the most recent accreditation by the American Board of Obstetrics and Gynecology was for 5 years. Our residents have the opportunity to work one-on-one with these fellows in performing procedures using state-of-the-art equipment. Residents gain exceptional experience with obstetric and gynecologic ultrasound through personal instruction with MFM faculty in the DoD's only America Institute Ultrasound Medicine accredited OB/GYN ultrasound facility.

All residents are required to perform a research project prior to graduation. This activity is well supported at the service and hospital level. This support includes funding to present papers at national meetings.

Military medical students interested in applying for Madigan's OB/GYN Residency are strongly encouraged to rotate on site. The selection process depends greatly on the opportunity to evaluate the candidate's knowledge base, commitment, work ethic, and communication skills. The optimal time to perform clinical rotations is May through October each year.

# TeamSTEPPS



ThegoalofTeamSTEPPS is to produce highly effective medical teams that optimize the use of information, people, and resources to achieve the best clinical outcomes for their patients. TeamSTEPPS is scientifically-rooted in more than 20 years of research and lessons learned from the application of teamwork principles identified to Crew Resource Management (CRM) and within High-Reliability Organizations (HROs).

### The TeamSTEPPS Approach: Higher Quality, Safer Patient Care

TeamSTEPPS is a teamwork system designed to improve quality, safety, and efficiency of health care; offering a powerful solution to improving patient safety within an organization.

TeamSTEPPS is an evidence-based teamwork system aimed at optimizing patient outcomes by improving communication and other teamwork skills among healthcare professionals. TeamSTEPPS includes a comprehensive suite of ready-to-use materials and training curricula necessary to successfully integrate teamwork principles into all areas of a healthcare system.

TeamSTEPPS was developed by the Department of Defense (DoD) Patient Safety Program, in collaboration with the Agency for Healthcare Research and Quality (AHRQ).

TeamSTEPPS comprises four teachable-learnable skills: Leadership, Situational Monitoring, Mutual Support and Communication. By learning these skills knowlege is improved through a "shared mental model". Attitude can be impacted by improving mutual trust amongst healthcare providers and changing focus their focus from individual task to a "Team Orientation". Through these a team improves performance (incressed adaptability, accuracy, productivity, efficiency and safety).

No other hospital in the United States, civilian or military, has accomplished more, trained more and led the way with new initiatives in this area of healthcare than Madigan Amry Medical Center.

# 1991

Col. Bill Hurely, Program Director of the Emergency Medicine Residency became the first in the nation to incorporate Crew Resource Management (an Aviation Safety based program) into a healthcare system.

# 1996

Col. Matt Rice, Chair, Department Emergency Medicine led the way by establishing Madigan Army Medical Center as lead medical center in the DoD MEDTEAMS<sup>™</sup> project.

# 2002

Col. Peter Nielsen, Chair, Dept OB/GYN, co-authored the first multicenter randomized clinical trial study introducing MEDTEAMS training into labor and delivery units. This study demonstrated a dramatic decrease in "time from first calling a cesarean to delivery of baby from 25 to 17 minutes." Patient and employee satisfaction survey results also saw significant improvements.

# 2005-2009

Madigan Army Medical Center has the longest recorded of self sustained medical teamwork training of any medical center in the country with more than 1,500 staff trained, 5 inpatient units including the first TeamSTEPPS Neonatal Intensive Care Unit and soon Madigan will have the first Pharmacy unit in the nation trained in TeamSTEPPS.

"TeamSTEPPS is a teamwork system designed to improve quality, safety, and efficiency of health care; offering a powerful solution to improving patient

safety within an organization."

# OCT 2008

The University of Washington Medical Center approached Madigan to train their first inpatient unit (Labor and Delivery). This endeavor earned the University of Washington Agency for Healthcare Research and Quality.

# MAY 2009

The Department of Surgery and Anesthesia/Operative Service initiates its interest with subsequent training of over 400 personnel in the medical center focusing on morning OR briefs, SBAR and debriefs. Madigan Army Medical Center is now the first in the country to have an online debrief checklist tool. This innovative tool identifies specific cases from the debrief which require follow up so improvements may be prospectively implemented.

# JUN 2009

Major General Patricia Horoho adopts TeamSTEPPS sending a command brief requesting that the medical center, and eventually the entire Western Region Medical Command, undergo TeamSTEPPS training. With this initiative, Madigan and the Western Region Medical Command are established as the first regional training effort in the nation, with Madigan as the train-the-trainer site.

Madigan is also the first facility to establish pre-training outcomes for all subsequent unit training to help assist each unit with plans for quarterly reports and post training evaluation.

#### TEAM-UP

TEAM-UP is a pilot program currently under IRB protocol. TEAM-UP will introduce and teach Madigan's patients to directly participate in their care.

#### **Simulation Training**

Madigan Army Medical Center is also the first to completely integrate TeamSTEPPS, the fundamentals class with simulated clinical scenarios integrated with the Anderson Simulation Center.

#### **Operational Medicine**

In 2008 Madigan trainers Col. Peter Napolitano and Lt. Col. Michelle Munroe were the first to introduce TeamSTEPPS training in the Iraq Theater of Operations. Since that time more than 2,500 personnel have been trained. During one CSH deployment TeamSTEPPS training, introduced midcycle, resulted in a 38% reduction of incident reports, 67% reduction in communications errors, 70% reduction of needle sticks and 83% reduction in medication errors.

# DEPARTMENT FACULTY



Department Chairman: Col. Peter Nielsen, MD, USA

Asst Department Chair & Residency PD Col. Michael Chinn, MD, USA

**Assoc. Residency PD and MFM Staff:** Lt.Col. Lisa Foglia, MD, USA

**MFM Fellowship Director:** Col. Peter Napolitano, MD, USA

**Chief, GYN Oncology Division:** Lt. Col. Louis Dainty, MD, USA

Associate Fellowship Director: Lt. Col. Jennifer Gotkin, DO, USA

Chief, OB Service: Lt.Col. Jason Pates, MD, USA **Chief, GYN Service:** Maj. Alison Batig, MD, USA

Chief, Ambulatory Care Service: Cpt. Timothy Batig, MD, USA

Asst. Chief Ambulatory Care Service Maj. Sara Thomson

Asst. Clinic Chief Dr. Chamales Ingrid, MD

Chief, Antepartum Diagnostic Center: Lt. Col Jennifer Gotkin, DO, USA

Chief, Urogynecology Division: Col. Jeffrey Clemons, MD, USA

**Reproductive Endocrinology & Infertility Division:** Maj. Ronald Beesley MD, USA, Chief

Dr. Gregory Chow MD, Staff

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#### Chief, Simulation Center:

Lt. Col. Shad Deering, MD, USA

Chief, Midwifery Service: Lt. Col. Kimberly Garcia, CNM

Assistant Chief, Midwifery Service: Ms. Roxanne Piecek, CNM

#### **Certified Nurse Midwife Staff:**

Cpt. (USN Ret.) Mary-Paul Backman, CNM Ms. Amber Knoche, CNM Ms. Barbara Shaffer, CNM Ms. Alexandra Michel, CNM Ms. Rachel Suria-Ramos, CNM

#### Chief, Medical Genetics:

Lt. Col. (USAF Ret.) Michael McClellan, MD

**Genetic Counselors:** Ms. Katie Stoll

Ms. Katle Stoll Ms. Dana Knutzen

#### **Staff Physicians:**

Lt. Col. Charles Pattan, MD, USA: Dr. Robert Holland, MD Dr. David Magelssen Dr. Acquinette Bryant Dr. Daniel Szekely

Clinical Research Coordinator Dr Eileen Hemman

Fellows MFM (third year): Maj. Brad Dolinsky, MD, USA

**MFM (second year):** Maj. Shannon Flood, MD, USA

MFM (first year): Cpt. Nathanial Miller, MD, USA Nurse Practitioners: Ms. Rebecca Cypher, MSN, PNP Ms. Ann Yeo, NP Ms. Diane Lee, NP Ms. Eileen Owen-Williams, NP Ms. Helen McGregor, NP Ms. Carol Jasaitis, NP Ms. Shayla Holland, NP





# Healthcare System

Charged with providing care to more than 100,000 beneficiaries through a network of healthcare facilities located in Washington, Oregon and California, the Madigan Healthcare System is a state-of-the-art healthcare organization in the U.S. Army Medical Command. providing world-class care every day. Madigan also benefits from a robust internal American Red Cross program; about 200 volunteers donate thousands of hours monthly.

At its heart is Madigan Army Medical Center, an ever-expanding care facility occupying more than 120 acres of land on Joint Base Lewis-McChord in Tacoma, Washington. With 57,000 beneficiaries, the medical center's tri-service mission encompasses active duty, family members and military retirees residing in its 40-mile catchment area.



Through all of life's stages, Madigan's commitment to care is unrivaled, with approximately 5,000 civilian and military doctors, nurses, residents, interns and fellows

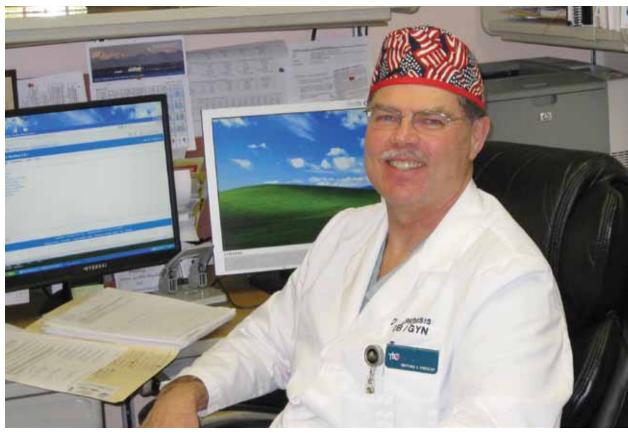
Since its opening in 1944 as a temporary hospital for war wounded, Madigan has grown to include a full spectrum of specialty and subspecialty services for adult and pediatric patients to include Developmental

Pediatrics, Hematology and Oncology, and Radiation Therapy. While the hospital continues to evolve and expand to meet the health care needs of its beneficiaries, it has remained committed to providing quality care, top-notch customer service and progressive deployment medicine while promoting a people friendly culture.

As one of the U.S. Army's

most technically advanced medical centers, the hospital is one of only three designated Level II trauma centers throughout the U.S. Medical Command (MEDCOM).

Additionally, Madigan's Andersen Simulation Center, which helps train thousands of doctors, nurses and medics each year, holds the distinction of being the first educational institution in the Department of Defense accredited by the American College of Surgeons. Finally, Madigan continues to consistently be named among the "100 Most Wired Hospitals and Health Systems" by Hospitals and Health Networks magazine.



In keeping with its reputation as an unparalleled teaching facility and modern research platform, Madigan also boasts outstanding Graduate Medical and Nursing Education

Programs. Residents and fellows enrolled in Madigan's Graduate Medical Education program consistently score in the 90th percentile on state and national examinations. Furthermore, Madigan Army Medical Center has or is currently performing research across the entire spectrum of clinical trials, from phase I to phase IV, allowing critical safety and efficacy data to be collected for health interventions.

Madigan continues its tradition of leading the way in patient care through initiatives such as TeamSTEPPS, a teamwork system developed at the hospital designed to improve quality, safety and efficiency of health care. The hospital also brings its "Care with Compassion" to the far corners of the globe with an average of 40 Soldiers deployed at any given

> time through the Army Medical Department's Professional Filler System.

As part of the Western Regional Medical Command, the largest of three regions the U.S. Army Medical Command, Madigan Healthcare System is perfectly poised to deliver the support the command needs to perform its mission of providing synchronized command and control, resource allocation and oversight to the nine Medical Treatment Facilities and two detachments under its control, ensuring a healthy military community and ready adaptive force.



