DEPARTMENT OF
FAMILY MEDICINE
University of Wisconsin
School of Medicine and Public Health

MADISON FAMILY MEDICINE
RESIDENCY PROGRAM

Scholarly and Community Health Projects

from the Class of 2016

Ali Brock, MD

Projects Completed During Residency:

Community Health Project:

Identifying and Reporting Elder Neglect in Wisconsin: A Case Study -- This spring I will be participating as a panelist in a community gathering hosted by the Belleville Area Cares Coalition in collaboration with the Federal Substance Abuse and Mental Health Services Administration. The gathering, which will be open to the public and titled "No One Starts Out on Heroin," will be a lecture and discussion about the trends of underage drinking and opioid abuse in Wisconsin and the Belleville Community. In preparation for providing the medical perspective as a panelist, I will review recent survey results from Belleville teens regarding substance use patterns and comprehensively review the medical literature regarding the health effects of underage substance use.

Scholarly Project:

Underage Substance Use in the Belleville Community -- My academic project is centered around elder neglect, a topic which I spent much of this past year reading and thinking about while caring for one of my most vulnerable patients. For the first part of my project I will be presenting that patient's case and a review of elder neglect and abuse trends and reporting requirements in Wisconsin. The second component of my project will involve writing a reflective piece detailing the process required to properly identify elder neglect and abuse in my patient, discussing my concerns directly with nursing home administration, and reporting the case to state authorities.

Originally from Beloit, WI, Ali Brock earned her bachelor's degree in Music Performance from Goucher College in Baltimore. She then returned to the Midwest to serve as an AmeriCorps VISTA member with the Chicago Public Schools Homeless Education Program. Working with a team of volunteers, she helped to create and implement Chicago HOPES, an after-school tutoring program serving public school students living in homeless shelters. During this time she also volunteered with The Night Ministry, a mobile health unit that visited underserved neighborhoods in Chicago. Ultimately, Ali decided to pursue her interests in education and community advocacy through a career in medicine. After returning to Goucher to complete a post-baccalaureate premedical program, Ali attended medical school at Brown University where she focused her attention on issues of prisoner health and medical-legal partnership, a model of care that places lawyers in primary care settings to address unmet legal needs adversely affecting patient health. Ali is a member of the National Health Service Corps and has strong interests in behavioral health and geriatric medicine. In her spare time, she enjoys listening to archived recordings of A Prairie Home Companion, exploring Madison's dog parks, rock climbing with her partner Simon, and spending time with her family in southern Wisconsin.

Christopher Danford, MD

Projects Completed During Residency:

Community Health Project:

Putting Out Fires Before They Start: A Community, Residency Clinic, Fire Department Partnership

Scholarly Project:

"Euglycemic" Ketoacidosis in a Patient with Type 2 Diabetes Being Treated with Canagliflozin:

Objective: Canagliflozin is one of a class of novel antiglycemic agents, sodium-glucose co-transporter 2 (SGLT-2) inhibitors, which are gaining in popularity in the treatment of diabetes.

Methods: We describe a case in which a patient experienced difficult to treat metabolic ketoacidosis in the setting of canagliflozin use.

Results: A 52-year-old man with type 2 diabetes mellitus developed profound ketoacidosis without overt hyperglycemia while taking canagliflozin. Despite initiation of insulin infusion, the metabolic acidosis persisted for three days.

Conclusion: Treatment with canagliflozin was associated with development of euglycemic ketoacidosis.

Christopher Danford, MD hails from Greensboro, North Carolina. After earning a bachelor's degree in Physics from Dartmouth College, he worked for four years as a researcher for Mediwave Star Technology, a small biomedical startup company in Greensboro. During that time, he felt a calling to social service, and left Mediwave to complete a medical degree at Duke University. Chris brings to Family Medicine a strong interest in advocacy, health systems, and policy.

Title: Putting Out Fires Before They Start: A Community, Residency Clinic, Fire Department Partnership

Background: In 2015, members of the University of Wisconsin Department of Family Medicine and Community Health (DFMCH) joined an effort initiated by the Madison Fire Department (MFD) to provide outreach to Dryden Terrace, a subsidized housing development for the elderly and disabled, that had been identified through internal MFD analysis as a "hotspot" of disproportionate resource utilization.

Objectives: This partnership evolved into a collaboration between Dryden Terrace social work staff; the fire department; Public Health of Madison and Dane County; and family medicine residents, faculty and staff of the UW DFMCH Northeast Clinic to understand basic and healthcare needs of Dryden residents and address them through resources of the DFMCH and the MFD.

Methods: Preliminary analyses included measurement of baseline 911 call data from MFD and emergency room (ER) transports. Electronic health record data for ER usage from Northeast Family Medical Center were analyzed. Representatives from Dane County Public Health developed a survey instrument derived from the SF12 and the Hennepin SHAPE surveys. MFD initiated a once-monthly afternoon program in a common room at Dryden Terrace, coincident with a weekly food pantry distribution. Residents were invited for blood pressure and point-of-care glucose measurements, to complete a survey, and for conversation. In conjunction with these afternoons, our group partnered with Dryden Terrace administration and social work staff to host "lunch and learn" discussions, facilitated by resident physicians and behavioral health staff from UW DFMCH.

Results: In initial surveys of community members, there was a high self-reported burden of disease limiting daily functioning, as well as high health-care utilization. Most respondents rated their health as "fair" or "poor," that their health limits daily activities, and that pain interfered with daily functioning. About 50% of Dryden Terrace residents were identified as Northeast Clinic patients and these residents were 340% more likely to visit the emergency department than the average Northeast patient. Review of MFD logs revealed that falls were a frequent reason for 9-1-1 calls that did not result in transport.

Conclusions: We expect future evaluations of this project to include before-and-after analysis of 9-1-1 utilization and ER visits. We hope to continue "lunch and learn" discussions this year on topics to include patient-physician engagement, fall prevention, self-activation and chronic pain. Through these discussion activities, we hope to recruit Dryden Terrace residents to help direct our project's development and mission.

Acknowledgments: Jen Edgoose; Julia Lubsen, Emily Torell, and Bonnie Garvens; Chiefs Johnny Winston, Jr. and Laura Laurenzi of Madison Fire Department; Kelsey Eyers and Nancy Lenz of Dryden Terrace/Meridian Group, Inc.; Mary Michaud, Public Health Madison and Dane County.

Maria Din, DO

Projects Completed During Residency:

Community Health Project:

Verona Clinic 2020 Healthy Lifestyle and Fitness Challenge

Scholarly Project:

A Family Practice Inquiry Network (FPIN) Topic in Maternity Care: Is Osteopathic Manipulative Treatment Effective for Low Back Pain Management in Pregnancy? Though large randomized controlled studies regarding this topic are limited, the available evidence demonstrates that OMT may reduce pain scores and improve back-related functioning in the third trimester of pregnancy compared to usual OB care only.

Thank you to my amazing husband Nabeel, who has been the pillar of strength during the tough times. You helped my dream come true. I love you! To my beautiful son Haaris, who shows me what love and happiness is everyday. To my parents, Zafeer and Afshan, who taught me that success comes from hard-work, perseverance and sacrifice. Without their dedication and sacrifices, I would not have the opportunities I do today. To my sister Juwaria, you inspire me everyday. And a special thanks to my DFMCH family, your support and mentorship has been invaluable.

– Maria

A Wisconsin native, Maria Din completed her undergraduate degree from UW-Madison before attending medical school at the Chicago College of Osteopathic Medicine of Midwestern University. She worked in several research capacities both during and after college, but her interest in a career in clinical medicine was confirmed by a summer internship at Doctor's Hospital in Lahore Pakistan. Working alongside a team of physicians, she had her first exposure to both medical morning rounds and the vast inequalities in the healthcare system experienced by people living in under-resourced areas. In medical school, Maria was drawn to Family Medicine for its focus on preventive medicine, the patient-physician relationship, and providing care to underserved populations. As a student, she volunteered at a local non-profit medical clinic and helped pilot a volunteer research project investigating medication non-compliance among individuals living with HIV/AIDS. Maria also organized outreach events for children and adolescents in her role as vice president of the Chicago College of Osteopathic Medicine Pediatric Club. In her free time, Maria enjoys reading biographies and memoirs, pilates, tennis, traveling, hiking, music, and fashion.

Title: Verona Clinic 2020 Healthy Lifestyle and Fitness Challenge

Background: Obesity is a growing epidemic in the United States, with more than one-third of the U.S. population being classified as obese. UW Verona Clinic is no different, with over 26% of the patient population having BMIs greater than 30. Obesity is the driving force for many preventable chronic conditions such as hypertension, diabetes, heart disease, and many others. Healthcare costs related to obesity concerns alone range from $147 to $210 billion per year.

To help address the obesity epidemic and other public health issues, in 2010 the U.S. Department of Health and Human Services revealed Healthy People 2020, a 10-year goal for health promotion and disease prevention. Healthy People 2020 has identified over 1,200 objectives, which are focused into 42 topics including nutrition, physical activity, and diabetes.

Objectives: In an effort to work towards the Healthy People 2020 vision, UW Verona Clinic initiated the 2020 Healthy Lifestyle and Fitness Challenge in 2014, led by Brian Arndt, MD; Maggie Larson, MD; Thomas Hahn, MD; and Julia Yates, LCSW. The program's goal is to help promote healthy lifestyles through nutrition and physical exercise. Twenty UW Verona patients with BMIs greater than 30 are recruited to participate every year for monthly sessions over a six-month period. Each session consists of vitals, stretching/relaxation, a healthy dinner, educational topics, and individualized goal setting though SMART goals. Participants are also emailed weekly recipes, provided gym membership discounts and grocery store discounts.

My role in the 2020 Healthy Lifestyle and Fitness Challenge consisted of participating in sessions with patients and teaming up with another resident to work with Verona restaurants and cafes to provide a comprehensive local menu with healthy nutritional alternatives and modifications.

Methods: I started attending sessions of the 2020 Healthy Lifestyle and Fitness Challenge in 2015 to gain a better understanding of what patients need to fulfill their personal goals. A common theme was barriers to eating healthy foods while eating out. Dr. Brian Arndt had compiled healthier menu items from franchised fast food restaurants as a starting point to overcome that barrier. This led to the idea of obtaining healthy options from local establishments as well. To start, another resident and I met and spoke with local restaurant and cafe owners/managers to discuss current healthy menu options. We compiled a brochure with the local healthy menu items and distributed it to the 2020 Healthy Lifestyle and Fitness Challenge participants.

Results: The direct results of the healthy menu brochure have not been measured. However, another resident and faculty involved in the group visits have analyzed outcomes in the following settings: quality of life, mental health, weight management, and development of healthy lifestyle behaviors. For the 2014 group, outcomes were measured with a pre- and post-study PHQ-9, a fitness &lifestyle challenge self-assessment, and weight checks. The 2015 group had the previous assessments in addition to a pre- and post-study SF-36, a self-reporting tool that

rates social, physical and emotion functioning. The SF-36 rates zero as complete disability and 100 as no disability.

A total of 25 participants completed the post assessment studies from 2014-2015 and results demonstrated significant reduction in pain (58.54 to 76.88, $p=0.004$), increase in emotional well-being (64 to 77.67, $p=0.016$), decrease in PHQ-9 scores (6 to 3.56, $p<0.001$), and weight loss (252.24 lb to 247.19 lb $p=0.025$). The fitness & lifestyle challenge self-assessment is a self-reporting survey that assesses confidence in healthy lifestyle behaviors, which resulted in significant improvement in confidence of reaching goals, food options and quantity, shopping and meal planning, starting physical activity/exercise programs, and using a pedometer.

Conclusions: The healthy menu options brochure is a good starting point to help patients overcome the challenge of making healthy choices when dining out. I have discussed expanding the project with Hy-Vee nutritionist, Kara Hoerr, RD, to include nutritional information by collaborating with a nutrition student in July 2016. This in turn will also help the local food service organizations, as many have discussed the high costs of calculating nutritional information of their menu items. Verona is also in the process of expanding to include more dining establishments, which could be featured in future brochures.

Emphasis on promoting wellness though nutrition and physical activity in the group setting has demonstrated improvement in quality of life, confidence, mental health and behavioral change as demonstrated by the fitness and lifestyle challenge. The group visit model promotes accountability, encouragement, support and comradery.

As family medicine healthcare providers, we are in a unique position to help our patients face barriers that affect all aspects of life while providing continuity of care. Our own barriers include the amount of time we get to spend with our patients. Programs such as the 2020 Healthy Lifestyle and Fitness Challenge allow us to provide time beyond the standard office visit to address concerns, set goals, and educate. The group visit model is a great way to navigate chronic conditions while building on the doctor-patient relationship.

Acknowledgments: Thank you to Brian Arndt, Maggie Larson, Thomas Hahn, and Julia Yates, for spearheading the program; Vincent Minichiello for his commitment to the program and providing the outcomes data; and Todd Domeyer for helping build the healthy menu options brochure and expanding on the project next year. Special thanks to Kara Hoerr, RD and Hy-Vee, Anytime Fitness, Millers and Sons, Unity, GHC and Physician Plus.

Sean Duffy, MD

Projects Completed During Residency:

Community Health Project:

Improving the safety and efficacy of chronic pain treatment at Wingra Clinic

Scholarly Project:

While participating in the Parent-Infant elective, I worked with Ildi Martonffy, MD, to produce a Help Desk Answer for the Family Physicians Inquiries Network, responding to the question "Are there effective office-based interventions that promote breastfeeding?" Following a review of the current literature, we concluded that providing dedicated breastfeeding support is more effective than usual care in increasing breastfeeding duration, particularly interventions utilizing peer support, pre-scheduled appointments, combined pre/postnatal elements, and face-to-face or web-based interactions. The resulting article was published in the Feb 2014 issue of Evidence-Based Practice.

I would like to thank my family, especially my wife Mariah, for their constant support during the challenges of residency.
– Sean

Originally from Milwaukee, Sean Duffy earned his B.A. in Anthropology from the University of Notre Dame and his medical degree from The University of Wisconsin School of Medicine and Public Health. He comes to Family Medicine with a longstanding commitment to underserved medicine and global health. As an undergraduate, he shadowed doctors and medical students as part of an internship program in Puebla, Mexico, and he traveled to Guatemala to volunteer with Common Hope, a non-profit organization that partners with impoverished families to ensure that children receive the services and support necessary to succeed in school. Then, as a medical student, Sean made three more trips to Guatemala, including a year-long leave of absence to work with Common Hope as a medical volunteer. When not traveling the globe, Sean is equally passionate about underserved medicine here at home. As an undergraduate he was co-president of the Community Alliance Serving Hispanics, and he organized a spring break trip to the Arizona border to work with migrants crossing the Arizona dessert. As a medical student, Sean was an active volunteer for the student-run MEDiC clinics, which provide free healthcare to underserved populations in Madison, and he was co-coordinator for the Global Health Interest Group. In his spare time, Sean enjoys spending time with family, traveling, reading about archaeology, and tinkering with computers.

Sean Duffy

Title: Improving the safety and efficacy of chronic pain treatment at Wingra Clinic

Background: Chronic pain is an extremely common problem, affecting from ~15% to one third of all American adults[1,2]. Long term prescribing of opioid medications has increased dramatically over the past 25 years in an attempt to address the burden of untreated chronic pain. However, the use of opioids for the treatment of chronic, non-cancer pain has uncertain efficacy and is associated with a number of possible complications, the most concerning of which are the development of opioid use disorder and death from opioid overdose. Mirroring the increase in prescribing, the rate of opioid overdose deaths nearly tripled from 2000 to 2014[3].

As in the nation at large, chronic pain is one of the most common problems that we encounter at Wingra Clinic, with chronic back pain alone present in ~14% of our patients in 2015[4]. In my informal conversations with Wingra residents, faculty, and staff, the treatment of chronic pain and management of opioid therapy was frequently perceived as challenging and frustrating.

Objectives: To develop Wingra-specific guidelines for the use of opioids in the treatment of chronic pain, as well as a peer review and support process, in order to empower physicians to use opioids and other modalities to treat chronic pain in an evidence-based and safe manner, improve uniformity of practice at our clinic, and help to combat the local and national opioid misuse and overdose epidemic. Fellow Wingra resident Lisa Netkowicz and I were partners on this project. I was primarily responsible for the drafting of the guideline and she took the lead on developing a peer review and support process.

Methods: We reviewed guidelines for opioid prescribing in use at Access Community Health Centers (ACHC), with which Wingra is affiliated and whose clinics have a similar patient population to our own, UW Health opioid prescribing guidelines, and the recently published CDC guidelines and adapted these resources to the Wingra context. We then solicited feedback from Wingra residents, faculty, pharmacist, and Behavioral Health Consultants (BHC) to revise and finalize the guideline. In developing a peer review/support process, we utilized the ACHC Complex Patient/Chronic Pain Care Management Work Group as a model and met with ACHC representatives to discuss their experiences with this group.

Results: The Wingra Clinic Guideline for the Use of Opioids in the Treatment of Chronic Pain was finalized in March 2016. Patient care/EMR tools to aid in the use of this guideline are currently in development. We piloted our first meeting of the Wingra Chronic Pain and Complex Case Management Work Group on 4/7/16. This was very well-received and we plan to hold monthly meetings to review cases brought forth by clinicians or support staff.

Conclusions: While the treatment of chronic pain must be individualized with each patient, practice partners can come to a consensus about best practices. A peer review and support process for chronic pain management challenges or other complex patient situations can help identify alternative clinical strategies and reduce clinician stress regarding these situations. We are hopeful that the guidelines and work group established by our project will help to improve

the safety and efficacy of opioid prescribing and chronic pain management at Wingra Clinic, as well as reduce clinician and staff frustration relating to this often challenging facet of care. It will be important to measure the effect these initiatives have on opioid prescribing at Wingra and to elicit feedback from clinicians, staff, and patients in order to continually improve these processes over time.

Acknowledgements: I would like to acknowledge the following people: Lisa Netkowicz, MD, my resident partner on this project; Kirsten Rindfleisch, MD, our clinic director, who advised us throughout the process; Wingra faculty and residents, who provided feedback on our draft guidelines and peer review process; Nora Groeschel, PharmD, our pharmacy director, who provided an integral pharmacy perspective on long-term opioid management; ACHC representatives Kevin Fehr, MD, Alex Young, MD, Chantelle Thomas, PsyD, and Elizabeth Zeidler Schreiter, PsyD for sharing their resources and experiences regarding chronic pain initiatives implemented in ACHC clinics.

References:

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3. Rudd, Rose A., Noah Aleshire, Jon E. Zibbell, and R. Matthew Gladden. "Increases in Drug and Opioid Overdose Deaths — United States, 2000–2014." *MMWR. Morbidity and Mortality Weekly Report MMWR Morb. Mortal. Wkly.* Rep. 64.50-51 (2016): 1378-382. Web.

4. Wingra Clinic. *Wingra Clinic Population Health Report Based on Active Panel in January, 2015*. Rep. Print.

Caitlin Hill, MD

Projects Completed During Residency:

Scholarly Project:

Skin-to-Skin Care Program in Cesarean Sections

Quality Improvement Project:

Dr. Kira Labby and I led a quality improvement project during the fall of 2015 based on improving handwashing practices within the residency clinic. Through increased reminders with fun Handwashing signs in each exam room as well as patient care areas and bathrooms and easier accessibility to hand sanitizer in these areas as well we were able to acheive close to 100% compliance as reported by patients for both nursing staff and clinicians.

Caitlin Hill earned her B.S. in Anthropology and Biology from UW–Madison and completed her medical degree at the University of Minnesota. She has a strong interest in rural medicine, and several formative experiences have allowed her to see firsthand both the benefits and challenges of providing care to underserved rural areas. After her first year of medical school, she completed a summer internship in Two Harbors, MN, which serves patients from remote areas along the north shore of Lake Superior. Then as a third-year student she participated in the Rural Physicians Associate Program. For nine months she lived and worked in Long Prairie, MN, caring for members of the Amish population and immigrants from Mexico who came to work in the meat packing plants. While in Long Prairie, she worked with leaders of the community to identify health needs and establish a free preventive health clinic that was located in the center of the Amish community. In addition to her work in rural health, Caitlin has been active in her school's Pediatric and Family Medicine Interest Groups, and she was the Education Committee Co-Chair for her local chapter of Women in Medicine. In her off hours, Caitlin is likely to be found outdoors, hiking, gardening, running, swimming, or canoeing on the local lakes. She is also a loyal Wisconsin Badgers fan.

Thank you to my incredubly supportive staff including attendings, nursing staff, and clinic staff in Baraboo. A huge thank you to my family who have always been there for support, encouragement and to provide excitment-filled responses when I talk about my passion for patient-centered obstetric care. Thank you to the Midwives in Long Prarie, Minnesota, and my mother and sister who have always reminded me that birth is a beautiful process and that even in surgical deliveries I should strive to provide a family-centered birth for my families when possible. A huge thank you to Dr. Kristen Wells, Dr. Mark Meier, Dr. Joseph Fok, Dr. Stuart Hannah, Dr. Rebecca Pfaff, Dr. Rachel Hartline, all of the OB providers at St. Clare, St Clare Surgical Staff, and St. Clare Labor and Delivery Staff, Melinda Schoen, and Rebecca Riesterer, and all of the patients willing to participate in the project and to those that have provided valuable feedback.

– Caitlin

Caitlin Hill
Baraboo RTT
Scholarly Project

Title:
Skin to Skin Care Program in Cesarean Sections

Background:
At St. Clare Hospital in Baraboo, WI we have had skin to skin care after vaginal deliveries for many years, but the same policy was not implemented for cesarean sections. Throughout my time in Baraboo I have been training under the supervision of the two general surgeons (Dr. Wells and Dr. Meier) as well as Dr. Fok, and OB/GYN in cesarean sections. I had noticed that patient centered birth care options were often lacking in the operating room, but I was unsure how to address this so I started to look for other examples across the literature.

Objectives:
The goal of my project was to bring patient centered care options back into cesarean sections and deliveries in the OR. Dr. Rebecca Pfaff, a third year resident at the time was championing immediate skin to skin contact as outline by WHO recommendations in vaginal deliveries. As she focused on vaginal deliveries I was inspired by her project and we started to discuss what that option could look like in cesarean sections. I focused on researching, presenting and then implementing immediate skin to skin contact in cesarean sections.

Methods: In December 2014 I presented a journal club focused on the current evidence and practices behind immediate skin to skin care in cesarean sections. As many family medicine centered hospitals were starting to implement this with minimal difficulty and positive outcomes I I started to discuss this option with both general surgeons. They were willing to accommodate the infant being placed on the mother during the remainder of the surgery if the proper staff could be present. I also discussed this with the CRNAs and nursing staff from Labor and Delivery who also were willing to try the proposed changes if the appropriate staff was available. In mid to late December of 2014 I started to include the explanation and option for skin to skin contact during my appointments with continuity OBs who were having planned repeat cesarean sections or primary cesarean sections for breech position. In January 2015 we completed our first scheduled repeat cesarean section with skin to skin implemented. After that initial case, with each appropriate candidate immediate skin to skin contact with the infant was implemented, if desired by the patient. In April 2015 Dr. Pfaff and I co-presented a CME at St. Clare Hospital on the benefits of immediate skin to skin contact in both vaginal and cesarean sections, and during that presentation I was able to lay out the full plan for implementation of immediate skin to skin contact in cesarean deliveries. Those are the slides included in the project book. Following the presentation there was more physician and nursing enthusiasm for the project, and the practice became standard in the operating room. We have now been consistently offering and implementing family centered cesarean sections with immediate skin to skin contact for around 16 months. Appropriate staffing has been accommodated to make this available for all appropriate deliveries. During my parent infant elective I focused on developing a survey for patients who have had cesarean sections since the point of implementation. I worked with the Quality Director at St. Clare as well as the Director of Nursing for Labor and Delivery and Dr. Hannah to develop a patient experience survey. It has been approved by the patient relations team and director of St. Clare hospital and will be sent out by the end of April 2016.

Results:As a consequence of the project we have implemented immediate skin to skin contact in cesarean sections and infants are able to stay on the mother if both are doing well throughout the operation and continue together to the recovery room. This has eliminated separation of mother and infant and delay of skin to skin contact that is fundamental in the promotion of successful initiation of breastfeeding and maternal infant bonding. Verbal responses from patients and staff have ben quite positive, but we will have an anonymous survey that can provide a clearer understanding of the effect of the project from the patient experience, once results are collected.

Conclusions: Our biggest challenge was complete team buy in and adjusting attending and nursing expectations. Having the surgeons champion the project was incredibly influential in the success of the project. By providing alternative infant exam and care options including how to examine an infant on the mother's chest, keeping breastfeeding initiation as a focus of the importance of skin to skin contact, and delaying of Hepatitis B and vitamin K shots until completion of the initial skin to skin period or completing it while the infant is on the mother, medical staff were less opposed to program as they were still able to complete their needed tasks. As the first set of patient surveys is sent out I anticipate productive feed back that can be used to mold the project into an even more successful patient experience. for the continuation of the project, I would recommend sending out surveys after each cesarean section within the first 1-2 months and then again at one year to allow/capture maximal patient input to the project.

Acknowledgements:
Dr. Kristen Wells, Dr. Mark Meier, Dr. Joseph Fok, Dr. Stuart Hannah, Dr. Rebecca Pfaff, Dr. Rachel Hartline, all of the OB providers at St. Clare, St Clare Surgical Staff,and St. Clare Labor and Delivery Staff. Melinda Schoen, and Rebecca Riesterer, and all of the patients willing to participate in the project and to those that have provided valuable feedback.

Skin-to-Skin

Caitlin Hill, MD
Rebecca Pfaff, MD
Baraboo Rural Training Tack

Conflicts of Interest

- None

The Fourth Stage

" The process of childbirth is not finished until the baby has safely transferred from placental to mammary nutrition."

World Health Organization

The *Ten Steps to Successful Breastfeeding*

- Have a written breastfeeding policy that is routinely communicated to all health care staff.
- Train all health care staff in the skills necessary to implement this policy.
- Inform all pregnant women about the benefits and management of breastfeeding.
- **Help mothers initiate breastfeeding within one hour of birth.**
- Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.
- Give infants no food or drink other than breast-milk, unless medically indicated.
- Practice rooming in - allow mothers and infants to remain together 24 hours a day.
- Encourage breastfeeding on demand.
- Give no pacifiers or artificial nipples to breastfeeding infants.
- Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or birth center.

Organizations Endorsing Skin-to-Skin Immediately After Birth

Academy of Breastfeeding Medicine (ABM)
American Academy of Pediatrics (AAP)
American Heart Association (AHA)
Neonatal Resuscitation Program (NRP)
World Health Organization (WHO)
American Academy of Family Physicians (AAFP)
American Academy of Nurses
American College of Nurse-Midwives
Academy of Nutrition and Dietetics
Association of Women's Health, Obstetrics and Neonatal Nurses (AWHONN)
Center for Disease Control and Prevention (CDC)
National WIC Association
U.S. Breastfeeding Committee
U.S. Preventive Services Task Force
U.S. Surgeon General

WHO Recommendation

- The goal for early initiation should be that newborns are placed skin-to-skin within minutes of birth, remaining for 60 minutes or longer, with all mothers encouraged to support the infant to breastfeed when their babies show signs of readiness.
- All infants should have access to immediate SSC after a cesarean section if a spinal or epidural anesthetic is used.
- After general anesthesia, the newborn should be placed skin-to-skin as soon as the mother is alert and responsive.
  - WHO & UNICEF: Baby Friendly Health Initiative 2012 (2009).

NRP Recommendation

- "If infant term, breathing, has good tone, should stay with the mother (do NOT take to radiant warmer)…dry and place skin-to-skin. This includes the vigorous infant."

- (Zaichkin 2011. Neonatal Resuscitation Program (NRP) 2011 New Sciences, New Strategies. *Advances in Neonatal Care pg 49) and same in Neonatal Network Vol 30 #1(2011)*

Cochrane Review

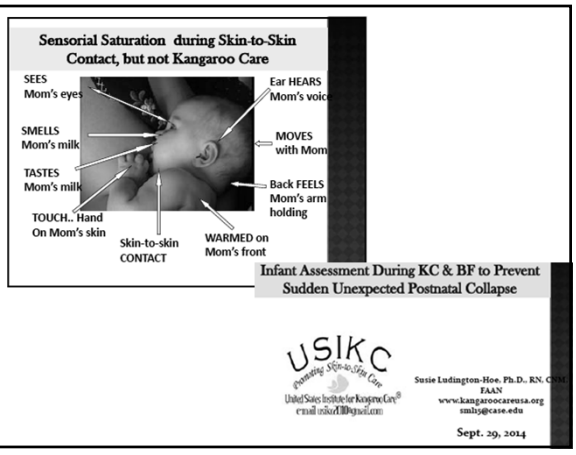
- "The intervention appears to benefit breastfeeding outcomes, and cardio-respiratory stability and decrease infant crying, and has no apparent short- or long-term negative effects. Further investigation is recommended."

What is Skin-to-Skin

- Traditionally describes the placement of a naked infant, occasionally with a diaper or hat on, on a mother's bare skin, with the exposed/back side of the infant covered by a blanket or towel.
- Current recommendation is for at least one hour of uninterrupted skin-to-skin after vaginal delivery, or until after the first feed, whichever lasts longer.

A few more definitions in the context of cesareans

- Immediate skin-to-skin contact: provided in first few minutes after cesarean section
- Early skin-to-skin contact: SSC provided within the first hour after cesarean section
- Natural or gentle cesarean: more patient/ family centered approach to operational delivery



Skin-to-Skin

- Baby can usually locate the nipple on her own
- Mother may need to move the baby closer to the areola and nipple to start suckling.
- Unnecessary washing of the breast or of the baby's hands may impede the newborn infant from using its sense of smell to locate the breast.
- All cares can be done on mother

Skin-to-Skin

- Support head and cover it with a hat
- Cover with blanket or towel
- The position should be flexed (fetal position) with maximal skin-to-skin contact
- Cheek to mother's chest
- Insure airway clear
  - The chin should be kept horizontal to the body, the neck flexed slightly less than the sniffing position
- Cup buttocks
- Mother should be a little upright, not flat (30-40 degrees)
- Continue routine surveillance of infant
- Remove infant if mother falling asleep

Sudden Unexpected Postnatal Collapse

5 Criteria for SUPC (Herlenius & Kuhn, 2013):

1. Apgar at 5 min of ≥ 8
2. previously healthy
3. found unresponsive
4. found not breathing
5. less than 30 days old

Occurs in 36/100,000 live births (Pejovic & Herlenius,2013)

Has occurred during skin-to-skin but skin-to-skin did not increase ALTE nor mortality incidence. (Andres et al., 2011)

9 Instinctive Stages of Newborn Behavior while Skin-to-Skin

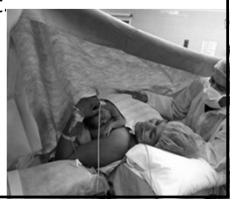
1) birth cry
2) relaxation
3) awakening
4) activity
5) resting
6) crawling
7) familiarization
8) suckling
9) sleep

Stage 1: The Birth Cry

This distinctive cry occurs immediately after birth as the baby's lungs expand.

Stage 2: Relaxation

Newborn exhibits no mouth movements and the hands are relaxed. This stage usually begins when the birth cry has stopped. The baby is skin to skin with the mother and covered with a warm, dry towel or blanket.



Stage 3: Awakening

Newborn exhibits small thrusts of movement in the head and shoulders. This stage usually begins about **3 minutes after birth**. May exhibit head movements, open his eyes, show some mouth activity and might move his shoulders.

Stage 4: Activity

Newborn begins to make increased mouthing and sucking movements as the rooting reflex becomes more obvious. This stage usually begins about **8 minutes after birth**.


Stage 5: Rest

At any point, the baby may rest. The baby may have periods of resting between periods of activity **throughout the first hour** or so after birth.

Stage 6: Crawling

The baby approaches the breast during this stage with short periods of action that result in reaching the breast and nipple. This stage usually **begins about 35 minutes after birth**.

Stage 7: Familiarization

Baby becomes acquainted with the mother by licking the nipple and touching and massaging her breast. This stage usually begins around **45 minutes after birth and could last for 20 minutes or more.**

Stage 8: Suckling

Takes the nipple, self attaches and suckles. This early experience of learning to breastfeed usually begins about an **hour after birth**. If the mother has had analgesia/anesthesia during labor, it may take more time with skin to skin for the baby to complete the stages and begin suckling.

Stage 9: Sleep

The final stage is sleep. The baby and sometimes the mother fall into a restful sleep. Babies usually fall asleep about **1½ to 2 hours after birth.**

- https://www.youtube.com/watch?v=ZcG_lGwpXk4 --- medicated versus non-medicated
- https://www.youtube.com/watch?v=m5RIcaK98Yg ---- natural c-section

5 benefits of early postpartum skin-to-skin contact

1) **Improves physiologic stability for mother and baby**
2) Increases maternal attachment behaviors
3) Protects baby from negative effects of separation
4) Supports optimal infant brain development
5) Increases breastfeeding rates and duration

Physiologic Stability

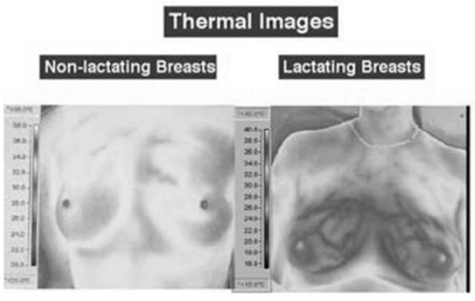
"While in contact with the mother, the infant's systems are kept at a regular tempo. But apart, the newborn must work doubly hard to maintain physiological harmony."

Heller, 31

Physiologic Stability

- Stabilizes
  - Respiration, oxygenation, blood pressure
- Maintains
  - Glucose levels
  - Temperature
    - Temperature of the mother's chest will
      - » Increase by 2 degrees Celsius if the baby is too cool
      - » Decrease by 1 degree Celsius if baby is too hot
- Reduces stress hormones through less crying

Martinez, *NeoReviews, 2007; Moore, Cochrane Database, 2007*



Physiologic Stability

Observations of Anesthesiologists:

- Mother's vital signs are usually more stable
  - Temperature
  - Blood pressure
  - Oxygen saturations
- Mother requires less medication:
  - Focused on baby – not surgery
  - Reduced pain and anxiety

"Thank you for bringing the baby to mother so soon after birth. It makes my job so much easier."
Anesthesiologist, LLUMC-Murrieta

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Increases Maternal Attachment Behaviors

- Hormones increased by skin-to-skin:
  - Endogenous opiod peptides
  - Estrogen and progesterone
  - Prolactin
  - Vasopressin
  - Dopamine
  - Oxytocin
  - ***studies

Increases Maternal Attachment Behaviors

If baby suckles within first hour, on average the mother has baby in room 100 minutes more each day.

At three months post-partum mothers spent more time kissing and looking at the faces of their babies and their babies smiled more and cried less.

5 benefits of early postpartum skin-to-skin contact

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Protects Baby from Negative Effects of Separation

- Mother and offspring live in a biological state that has much in common with addiction.
- When they are parted the infant does not just miss its mother. It experiences a physical and psychological withdrawal from a host of her sensory stimuli…not unlike the plight of a heroin addict who goes "cold turkey."

Gallagher, Motherless Child, 1992

Protects Baby from Negative Effects of Separation

- Protest - *universal infant response to separation*
  - Being in the wrong place
  - Outside the newborn's natural habitat
- Loud cries and intense activity
  - Purpose: attract mother's attention
  - Instinctive
  - The cry is different and resolves when placed with mother.

Protects Baby from Negative Effects of Separation

	Skin-to-Skin	Separate
Number of Cries	4	41
Time Crying	70	2839

Christensson, Acta Paediatrica, 1992

5 benefits of early postpartum skin-to-skin contact

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Supports Optimal Infant Brain Development

- The baby brain matures by touch.

"The child is using the output of the mother's right cortex as a template for the imprinting, the 'hard wiring' of circuits in its own right cortex, that will come to mediate its expanding affective capacity."

A. Schore 1997 Schore, Infant Mental Health Journal, 2001

Supports Optimal Infant Brain Development

- Infants who spend 1-2 hours skin to skin after birth
  - More positive mother-infant interaction 1 year later
  - Better self-regulation 1 year later.

Bystrova, 2009; Widstrom, 2011

5 benefits of early postpartum skin-to-skin contact

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Increases Breastfeeding Rates and Duration

- Decreased time to first suckling
- Improved first latch
- Increased duration of breastfeeding
- Reduced risk for delayed milk production

Increases Breastfeeding Rates and Duration

- Twice as likely to still be breastfeeding at 1-3 months
  - 58% of the participants in the extra-contact study were breastfeeding their babies at three months postpartum, as compared to 26% in the control group.
- Breastfed for an average of 42 days longer

Increases Breastfeeding Rates and Duration

San Francisco General Hospital

15 minutes of Skin-to-Skin in Operating Room

In first 9 months of intervention

– Increased STS in OR to 60%

– Increased STS in first 90 minutes to 70%

– Increased STS in first 4 hours from 60% to 91%

Increases Breastfeeding Rates and Duration

San Francisco General Hospital
15 minutes of Skin-to-Skin in Operating Room

- Supplementation rates
  - 33% - STS in the OR
  - 42% - STS within 90 min but not in OR
  - 74% - No STS within 90 min
- Exclusive breastmilk feeding rates
  - 67% - STS in the OR
  - 58% - STS in recovery room within 90 min (not OR)
  - 26% - No STS within 90 min (not OR or recovery room)

Hung K, 2011

Increases Breastfeeding Rates and Duration

Cesarean-Delivered Newborns

2 hours uninterrupted skin-to-skin initiation mean 51 minutes post-delivery

- More likely to be breastfeeding at discharge
- More likely to be breastfeeding at 3 months
- Mothers in the skin-to-skin group expressed higher levels of satisfaction

Increases Breastfeeding Rates and Duration

Large-scale study in a sub- Saharan African region (rural Ghana)

- Neonatal mortality increased in a dose-response fashion with an increased delay in the initiation of breastfeeding from one hour to seven days.
- 16% of neonatal deaths could have been avoided if all infants were breastfed from day one
- 22% could have been avoided if breastfeeding had been initiated within the first hour after birth.

Increases Breastfeeding Rates and Duration

Famous Observational Study by Righard & Alade

At 2 hours of life:

- 24/38 infants in skin-to-skin group suckling correctly
- 7/34 infants in separation group suckling correctly

Current practices that weren't always current

Cesarean Delivery

- Shift from general aesthesia to spinal or regional anesthesia
- Patient driven music
- Allowing partners/ support persons to be present at delivery

Vaginal Delivery

- Rooming in of baby
- Epidurals

Why the push for a different type of cesarean?

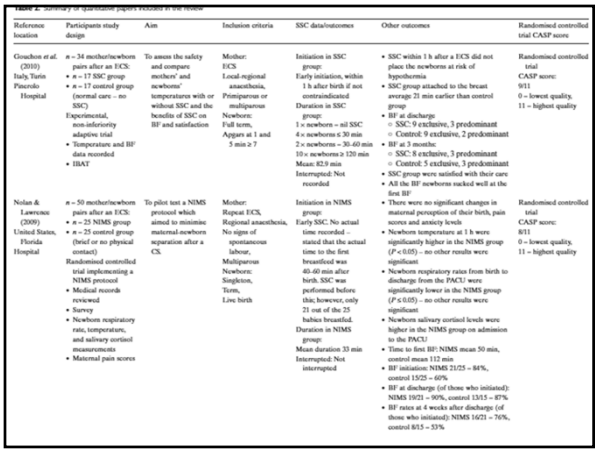
- Patient driven- patient satisfaction
  - Comparing experience with vaginal vs. cesarean births and desire to provide moms with same/similar opportunities
- Quality driven
  - Skin to skin has many benefits that Dr. Pfaff reviewed that are not exclusive to vaginal delivery and that are recommended by the Baby Friendly Hospital Initiative- which is the standard of care.
- Studies show that after a vaginal delivery, on average 71.5 percent of babies start Breastfeeding immediately, compared to 3.5 percent of babies born by cesarean section- we need to do everything to fix this.

Gentle/Family-Centered Cesarean The research

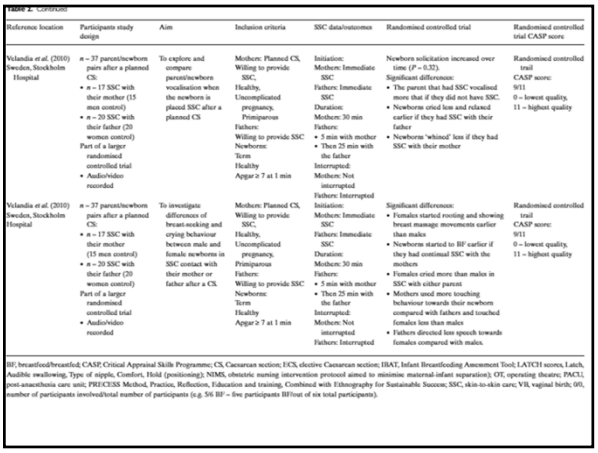
- Recent JABFM Article (September/ October2014) cite the benefits for gentle cesarean section to include:
  - Improved maternal perception of the birth experience
  - Improved maternal-infant bonding
  - Improved stability of infant temperature
  - Improved initiation and duration of breastfeeding

Gentle/Family-Centered Cesarean The research

- In December I presented a Journal club on this topic based on a literature review.
- The quality of trials/ research on this topic at this time are limited, but one overarching theme is improved maternal infant experience, feasibility of this approach, and that this approach does not pose any increased risk to baby or mom.



Reference location	Participants study design	Aim	Inclusion criteria	SSC data/outcomes	Other outcomes	Randomised controlled trial CASP score
Gouchon *et al.* (2010) Italy, Turin Pincolo Hospital	*n* – 34 mother/newborn pairs after an ECS: • *n* – 17 SSC group • *n* – 17 control group (normal care – no SSC) Experimental, non-inferiority adaptive trial • Temperature and BF data recorded • IBAT	To assess the safety and compare mothers' and newborns' temperatures with or without SSC and the benefits of SSC on BF and satisfaction	Mother: ECS Local-regional anaesthesia, Primiparous or multiparous Newborn: Full term, Apgars at 1 and 5 min ≥ 7	Initiation in SSC group: Early initiation, within 1 h after birth if not contraindicated Duration in SSC group: 1 × newborn – nil SSC 4 × newborns ≤ 30 min 2 × newborns – 30–60 min 10 × newborns ≥ 120 min Mean: 82.9 min Interrupted: Not recorded	• SSC within 1 h after a ECS did not place the newborns at risk of hypothermia • SSC group attached to the breast average 21 min earlier than control group • BF at discharge ○ SSC: 9 exclusive, 3 predominant ○ Control: 9 exclusive, 2 predominant • BF at 3 months: ○ SSC: 8 exclusive, 3 predominant ○ Control: 5 exclusive, 3 predominant • SSC group were satisfied with their care • All the BF newborns sucked well at the first BF	Randomised controlled trial CASP score: 9/11 0 – lowest quality, 11 – highest quality
Nolan & Lawrence (2009) United States, Florida Hospital	*n* – 50 mother/newborn pairs after an ECS: • *n* – 25 NIMS group • *n* – 25 control group (brief or no physical contact) Randomised controlled trial implementing a NIMS protocol • Medical records reviewed • Survey • Newborn respiratory rate, temperature, and salivary cortisol measurements • Maternal pain scores	To pilot test a NIMS protocol which aimed to minimise maternal-newborn separation after a CS.	Mother: Repeat ECS, Regional anaesthesia, No signs of spontaneous labour, Multiparous Newborn: Singleton, Term, Live birth	Initiation in NIMS group: Early SSC: No actual time recorded – stated that the actual time to the first breastfeed was 40–60 min after birth. SSC was performed before this; however, only 21 out of the 25 babies breastfed. Duration in NIMS group: Mean duration 33 min Interrupted: Not interrupted	• There were no significant changes in maternal perception of their birth, pain scores and anxiety levels • Newborn temperature at 1 h were significantly higher in the NIMS group ($P < 0.05$) – no other results were significant • Newborn respiratory rates from birth to discharge from the PACU were significantly lower in the NIMS group ($P \leq 0.05$) – no other results were significant • Newborn salivary cortisol levels were higher in the NIMS group on admission to the PACU • Time to first BF: NIMS mean 50 min, control mean 112 min • BF initiation: NIMS 21/25 – 84%, control 15/25 – 60% • BF at discharge (of those who initiated): NIMS 19/21 – 90%, control 13/15 – 87% • BF rates at 4 weeks after discharge (of those who initiated): NIMS 16/21 – 76%, control 8/15 – 53%	Randomised controlled trial CASP score: 8/11 0 – lowest quality, 11 – highest quality



Reference location	Participants study design	Aim	Inclusion criteria	SSC data/outcomes	Randomised controlled trial	Randomised controlled trial CASP score
Velandia *et al.* (2010) Sweden, Stockholm Hospital	*n* – 37 parent/newborn pairs after a planned CS: • *n* – 17 SSC with their mother (15 men control) • *n* – 20 SSC with their father (20 women control) Part of a larger randomised controlled trial • Audio/video recorded	To explore and compare parent/newborn vocalisation when the newborn is placed SSC after a planned CS	Mothers: Planned CS, Willing to provide SSC, Healthy, Uncomplicated pregnancy, Primiparous Fathers: Willing to provide SSC Newborns: Term Healthy Apgar ≥ 7 at 1 min	Initiation: Mothers: Immediate SSC Fathers: Immediate SSC Duration: Mothers: 30 min Fathers: • 5 min with mother • Then 25 min with the father Interrupted: Mothers: Not interrupted Fathers: Interrupted	Newborn solicitation increased over time ($P = 0.32$). Significant differences: • The parent that had SSC vocalised more that if they did not have SSC. • Newborns cried less and relaxed earlier if they had SSC with their father • Newborn 'whined' less if they had SSC with their mother	Randomised controlled trail CASP score: 9/11 0 – lowest quality, 11 – highest quality
Velandia *et al.* (2010) Sweden, Stockholm Hospital	*n* – 37 parent/newborn pairs after a planned CS: • *n* – 17 SSC with their mother (15 men control) • *n* – 20 SSC with their father (20 women control) Part of a larger randomised controlled trial • Audio/video recorded	To investigate differences of breast-seeking and crying behaviour between male and female newborns in SSC contact with their mother or father after a CS.	Mothers: Planned CS, Willing to provide SSC, Healthy, Uncomplicated pregnancy, Primiparous Fathers: Willing to provide SSC Newborns: Term Healthy Apgar ≥ 7 at 1 min	Initiation: Mothers: Immediate SSC Fathers: Immediate SSC Duration: Mothers: 30 min Fathers: • 5 min with mother • Then 25 min with the father Interrupted: Mothers: Not interrupted Fathers: Interrupted	Significant differences: • Females started rooting and showing breast massage movements earlier than males • Newborn started to BF earlier if they had continual SSC with the mother • Females cried more than males in SSC with either parent • Mothers used more touching behaviour towards their newborn compared with fathers and touched females less than males • Fathers directed less speech towards females compared with males.	Randomised controlled trail CASP score: 9/11 0 – lowest quality, 11 – highest quality

BF, breastfeed/breastfed; CASP, Critical Appraisal Skills Programme; CS, Caesarean section; ECS, elective Caesarean section; IBAT, Infant Breastfeeding Assessment Tool; LATCH scores, Latch, Audible swallowing, Type of nipple, Comfort, Hold (positioning); NIMS, obstetric nursing intervention protocol aimed to minimise maternal-infant separation); OT, operating theatre; PACU, post-anaesthesia care unit; PRECESS Method, Practice, Reflection, Education and training, Combined with Ethnography for Sustainable Success; SSC, skin-to-skin care; VB, vaginal birth; 0/0, number of participants involved/total number of participants (e.g. 5/6 BF – five participants BF/out of six total participants).

Table 3. Summary of qualitative papers included in the review

Reference location	Participants study design	Aim	Inclusion criteria	SSC data/outcomes	Other outcomes	Qualitative CASP score
Crombaw et al. (2012) United States, Southwest Medical Center	Stage 1 Staff (no numbers) $n = 11$ mother/newborn pairs: • $n = 5$ ESC • $n = 6$ VB PRECESS method – descriptive observational • Analysis of SSC rates – review of hospital records Stage 2 SSC: $n = 360$ mother/newborn pairs: • $n = 180$ CS • $n = 180$ VB BF: $n = 2265$ mother/newborn pairs Comparison: Monthly SSC and exclusive BF (6 months) – review of hospital records	To use a programme to improve SS rate and describe the rate of SSC and exclusive BF at hospital discharge	Stage 1 Staff: Working in the medical centre Mothers: English speaking, > 18 years old, Agreed to have and able to provide SSC immediately after birth (≤2 min), Primiparous or multiparous CS: Elective Newborns: Healthy Stage 2: Mothers: Excluded if indicated they did not want to BF	Stage 1 Initiation: VB: 66 → 100% immediate SSC ECS: 45 → 80% immediate SSC 15 → 20% early SSC Duration in CS group: Mean 82 min Interrupted: 3/11 → 27% interrupted Stage 2: Initiation pre/post programme: All participants: Pre: 25/60 → 58% Post: 230/300 → 83%. $P < 0.001$ VB: Pre: 28/30 → 93% Post: 130/130 → 93%, no difference CS: Pre: 7/30 → 23% Post: 116/130 → 77%. $P < 0.001$ Time initiated not recorded Duration: not recorded Interrupted: not recorded	Stage 1 VB participants: • 4/6 planned to BF • 3/4 – 75% of those who planned to BF exclusively BF at discharge ECS participants: • All planned to BF • 3/5 – 60% exclusively BF at discharge Stage 2 Exclusively breast milk fed pre/post programme: All participants: Pre: 194/373 – 52% Post: 900/1928 – 51%. no difference Barriers to SSC: Lack of staff	Observational method CASP score: 10/10 0 – lowest quality 10 – highest quality
Finigan & Davies (2004) UK, England	$n = 6$ mother/newborn pairs: • $n = 1$ CS • $n = 5$ VB van Manen's interpretive phenomenology • Audio-taped diaries • Interview	To explore six women's lived experiences of SSC shortly after birth	Had to have SSC within 30 min of birth, SSC lasting ≥ 1 h Mothers: Primiparous or multiparous 21–36 years old	Initiation: CS: Immediate initiation in the operating theatre VB: Immediate to early SSC , initiated SSC within 30 min of birth Duration:≥ 1 h Interrupted: Not interrupted	Five themes: • Immediate feelings of bonding • Touching and stroking the baby • Eye-to-eye contact and getting to know the newborn • Natural, instinctive behaviour • Not wanting to let go	Phenomenology CASP score: 10/10 0 – lowest quality 10 – highest quality
Hung & Berg (2011) United States, California Hospital	Staff (no numbers) $n = 32$ mother/newborn pairs after a CS: • $n = 10$ Pre-project • $n = 22$ Post-project Implementation of a quality improvement project to minimise maternal-newborn separation – Plan, Do, Study, Act Model for Improvement • Hospital compilation of data recorded pre and post-implementation of the project	To describe a quality improvement project that promotes early SSC contact in the operating theatre, with the aim to increase success of BF initiation after a CS	Staff: Working in the Hospital Mothers: Those who had a CS Newborns: Good respiratory effort at birth, HR > 100 beats per minute, pink lips and trunk, good muscle tone	Initiation: Pre-project: Early SSC • 0–30 min: Nil • 30–90 min: 20% • 90–360 min: 40% Post-project: Immediate or early SSC • First 3 months after project ○ SSC 0–30 min: 45% ○ SSC 30–90 min: 23% ○ SSC 90–360 min: 23% • First 9 months after project ○ SSC in the OT 46% ○ SSC >90 min 70% Duration: Not recorded Interrupted: Not recorded	First 9 months Post Project: • LATCH score (range 0–10, low-high) ○ SSC in OT – Score: 8.0 ○ SSC > 90 min – Score: 7.7 ○ SSC > 4 h or non – Score: 7.6 • Formula supplementation ○ SSC in OT – 35% supplemented ○ SSC <90 min, not in OT – 42% supplemented ○ SSC > 90 min or no SSC – 74% supplemented • Maternal positive feedback • Challenges: ○ Staff Initially reluctant/fearful ○ Staff assignment	Qualitative improvement project CASP score: 9/10 0 – lowest quality 10 – highest quality

BF, breastfed/breastfed; CASP, Critical Appraisal Skills Programme; CS, Caesarean section; ECS, elective Caesarean Section; IBAT, Infant Breastfeeding Assessment Tool; LATCH scores, Latch, Audible swallowing, Type of nipple, Comfort, Hold (positioning); NIMI, Onnitrie nursing intervention protocol aimed to minimise maternal-infant separation; OT, operating theatre; PACU, post anaesthesia care unit; PRECESS Method, Practice, Reflection, Education and training, Combined with Ethnography for Sustainable Success; SSC, skin-to-skin care; VB, vaginal birth; 0/0, number of participants involved/total number of participants (e.g. 5/6 BF = five participants BF/out of six total participants).

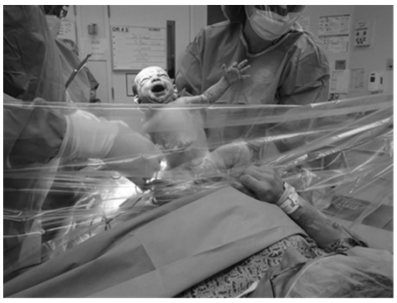
The Ideal:What does a Natural cesarean Section Look like?

- In routine cesarean sections, non-emergent cesarean sections, or in sections where there are minimal fetal concerns- traditionally APGARS >7 at 1 and 5 minutes.
- Parents choose music
- Mom is positioned with her dominant arm free and her gown unbuttoned at the top to allow easy access to the chest for baby
- Place the pulse oximeter, intravenous catheter, and the blood pressure cuff on the non-dominant arm. Alternatively the oximeter can be placed on a toe.
- Place the echocardiogram leads on the back or far laterally to facilitate early chest contact between mother and baby.

Parental Participation

- Offer the mother and her support partner the option to view the birth of their baby as active participants.
  - This can include use of a clear drape, with accessory drape to cover during incision and closing, lowering the drape at the head of the bed, and elevating mom's head during he delivery of the baby

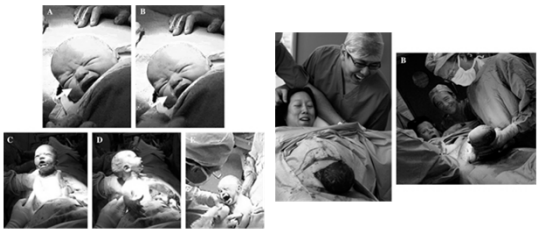
Clear drapes



Slowed Delivery process:

- Some centers are using the technique of "Walking the baby out"
  - With the clear drape mom's head is raised once the uterine incision is made
  - Baby's head is then brought through the abdominal incision. Partner can stand.
  - Then the baby's abdomen is left in the uterus as the baby starts to auto resuscitate
  - Once crying the baby's shoulders are delivered and the baby frequently frees his own arms and then body.

BJOG. 2008 Jul; 115(8): 1037–1042.



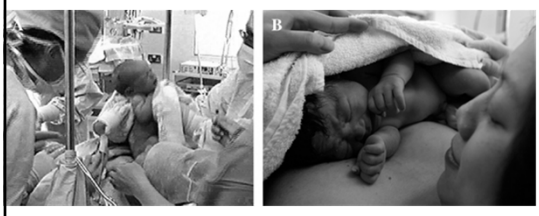
If you opt out for Auto resuscitation:

- Delayed cord clamping for at least 30 seconds after birth
- Stimulation of the infant on the operating table before the cord is clamped

Skin to skin

- Depending on the set up:
  - Sterile person at the head of he bed can be handed baby to place on mom skin to skin immediately
  - Or, Baby can be walked around to mom and placed skin to skin.
  - Immediate placement of of infant skin to skin with the mother if both are clinically stable

BJOG. 2008 Jul; 115(8): 1037–1042.



After Closure:

From the time of delivery on cesarean and vaginal cares are essentially the same except for the following:

- Infant can be given to the support partner when mom is moved over to the bed following surgery
- Rather than separating the mother and newborn for the trip to the recovery area, have the mother cradle the newborn on her chest during the transport process.
- Mom and baby dyad should remain together in Recovery.

When you would not pursue this:

- The mother- and baby-centered cesarean, with its focus on early STS contact and breastfeeding, is *not recommended to be used routinely:*
  - *Preterm births*
  - *In emergency cesarean deliveries*
  - *In cases where the baby is at risk for a low Apgar score.*

Barriers and Solutions:

- **Won't the baby get cold?**
  - In vaginal and cesarean deliveries maternal temperature will adapt to keep baby warm. A warm blanket should be placed over baby's back to help maintain temperature and a hat placed the head.
  - Some facilities will maintain an operating theater temperature >25 degrees Celsius (77F) for cesareans.

Barriers and Solutions:

- **Transient Tachypnea of the Newborn**
  - **More common in cesarean sections. Some thought that slow delivery will reduce occurrence.**
  - **If symptoms develop then at that time STS can be stopped and baby further evaluated.**
  - **Placing the baby STS will often help regulate breathing**

Barriers and Solutions:

- **Won't it be crowded at the table/ head of the bed?**
  - Communication as always is key
  - It does take some repositioning of equipment to be more conducive to this set-up
  - We make room for many necessary interventions, this is worth it!

Barriers and Solutions:

- **How do we make sure that mom and baby stay safe?**
  - Nursing one on one
  - CRNA is only making sure mom is okay, nurse makes sure baby is okay
  - Nursing ensures appropriate alignment of baby and mom for skin to skin
  - If mother develops nausea and emesis, remove baby until episode has resolved

Barriers and Solutions:

- **Isn't it bad that baby is not crying?**
  - When babies are placed skin to skin they are more calm and may not cry as often as infants that are not skin to skin. As long as other vitals are normal this is not a concern.

Barriers and Solutions

- **Won't this delay cares?**
  - Hep B recommended within 12 hours
  - Vit K recommended within 2 hour
  - Erythromycin recommended within 1 hour
  - These can easily be administered on the abdomen

Barriers and Solutions

- **I want to examine Baby**
  - The essential infant exam can be completed on mom.
  - Skin to skin is the most important activity during the initial hours of life, so parts of the newborn exam can wait until the following day.
  - Skin-to-skin friendly dot phrases:
    - STSNEWBORNHP
    - STSDELIVERY

Barriers and Solutions

- **Mother would like the baby cleaned**
  - Baby can be cleaned on chest
  - Bathing the infant or removing the vernix should be postponed. The scent of the amniotic fluid on the baby's skin helps the baby to find its way to the mother's breast, which has the same scent.
  - Bathing unnecessarily exposes the baby to heat loss. An infant's ability to regulate temperature is undeveloped in the first 24 to 48 hours after birth

Barriers and Solutions

- **Parents interfere**
  - Honor the mother's wishes
  - Prepare during prenatal care
  - Discuss on admission to change expectation of immediate measurements

Conclusion

- More studies are coming out about the benefits of Skin to Skin in cesarean section, and there have been no studies proving that it is unsafe.
- It is in the public light right now:
  - NPR 3/9/15: The Gentle Cesarean: More Like A Birth Than An Operation
- This is a service that we can provide first in our area
- It will bring birth back into a family centered experience that has been missing in the OR for too long.

Preparing our patients for family centered cesarean

- Educate our patients on this option.
- Encourage them to watch a 12-minute video:
- The Natural Caesarean: A Woman-Centered Technique
  - https://www.youtube.com/watch?v=m5RIcaK98Yg

Resources

- World Health Organization and UNICEF (2009). *Baby Friendly Health Initiative. Revised Updated and Expanded for Integrated Care.*
- Nolan A and Lawrence C. A pilot study of nursing intervention protocol to minimize maternal-infant Separation After cesarean birth. *JOGNN (2009)*,38: 430-442.
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St. Clare Hospital

April 2016

Dear (patient):

At St. Clare Hospital, we are always seeking opportunities to improve the mother and baby's birth experience to ensure it is the most memorable and joyous occasion possible. Over the past 16 months, we have initiated a new skin-to-skin care program with our cesarean section patients. To help us evaluate the effectiveness of this program, we are looking for your feedback and would value your assistance by asking you to complete this quick questionnaire. It will help the St. Clare Hospital staff continue to improve the labor and postpartum experience.

Please note that your participation is completely voluntary and will remain anonymous. All answers will be grouped and not individually identified. Thank you in advanced for your thoughtful participation. Here are a few things to keep in mind as you share your input with us:

Definitions:

- **Skin-to-skin** care occurs after delivery when the baby is gently dried and then placed on the mother's chest. Most often, a hat is on the baby's head and a warm blanket is placed over the mother. Both baby's and mom's skin are in direct contact.
- **Cesarean delivery** — also known as a C-section — is a surgical procedure used to deliver a baby through incisions in the mother's abdomen and uterus.

Again, thank you for sharing your input with us.

Sincerely,

St. Clare Child Birth Center Staff & Physicians

Please answer the following questions by circling your answer or writing in a response:

1) In the last two years, did you have a cesarean section at St. Clare Hospital? (circle one)

   Yes No

2) Was your cesarean section a planned or unplanned cesarean section? (circle one)

   Planned Unplanned

3) Was this your first cesarean section? (circle one)

   Yes No

4) Did baby stay in the operating room and/or recovery room with you after delivery?

   Yes No

5) Was baby placed on your chest skin-to-skin while you were still in the operating room?

   Yes No

6) If baby was not placed on your chest in the operating room, was baby placed skin-to -skin after you returned from the cesarean section in the recovery room or in your child birth center room? (circle one)

   Yes No Not Applicable

7) Had you heard about skin-to-skin contact prior to your delivery? (circle one)

   Yes No

8) If you have had a previous delivery anywhere, had you experienced skin-to-skin care prior to your most recent delivery? (circle one)

   Yes No

St Clare Hospital

9) Was skin-to-skin contact something that you requested for your delivery? (circle one)

Yes No

10) If you had a previous cesarean section without skin-to-skin, do you prefer having the opportunity to have skin-to-skin contact with your newborn in the operating room?

Yes No

11) What did you enjoy about your skin-to-skin contact experience? (circle all that apply)

a) Being the first one to hold the baby / bonding

b) Early start to breastfeeding

c) Distraction from discomfort after birth

d) Nothing – I did not enjoy the experience

e) Other: _____

12) What did you not enjoy about the skin-to-skin contact experience? (circle all that apply)

a) Family waiting to hold the baby

b) Lack of privacy

c) Difficult / Uncomfortable to hold baby in that position

d) Nothing – I enjoyed the experience

e) Other: _____

13) Is skin-to-skin contact in the operating room an option we should continue to offer to mothers? (circle one)

Yes No

14) If you had a cesarean section prior to December 2014, when did you first get to hold your baby in skin-to-skin contact?

_____

15) If you did not have skin to skin care with a previous delivery prior to December 2014, is this something that you might have liked to have? (circle one)

Yes No

16) In the space below please share with us any other comments or questions that you have regarding skin to skin contact after delivery.

Skin-to-Skin Evaluation Please circle one: Doctor/Nurse/Other

1. Crying throughout the first hour of life is important because it clears the lungs.
   - False
   - True

2. Skin to skin should last, uninterrupted until baby is done feeding or for 1 hour, whichever lasts longer
   - False
   - True

3. Which of the following organizations endorse the goal of skin-to-skin:
   - Academy of Breastfeeding Medicine (ABM)
   - American Academy of Pediatrics (AAP)
   - American Heart Association (AHA)
   - Neonatal Resuscitation Program (NRP)
   - World Health Organization (WHO)
   - American Academy of Family Physicians (AAFP)
   - American Academy of Nurses
   - American College of Nurse-Midwives
   - Academy of Nutrition and Dietetics
   - Association of Women's Health, Obstetrics and Neonatal Nurses (AWHONN)
   - Center for Disease Control and Prevention (CDC)
   - National WIC Association
   - U.S. Breastfeeding Committee
   - U.S. Preventive Services Task Force
   - U.S. Surgeon General

4. Babies who were placed skin-to-skin are ____ as likely to be breast feeding at 1-3 months of age
   - Twice
   - Thrice

5.It is important that an accurate weight be documented as soon as possible
   - False
   - True

6.How many stages have been identified that the baby goes through in first hour after birth
   - 6
   - 7
   - 8
   - 9
   - 10

7.If a baby is cold or mildly tachypnic it should be taken from the mother for closer observation and re-warming
   - False

True

8. Skin-to-skin requires more nursing time
   False
   True

9.Which of the following cares can be done while skin-to-skin
   Temperature
   Lung exam
   Cardiac exam
   Bathing
   APGARs
   Placing bracelet
   Trimming cord
   Measuring vital signs
   Hearing test
   IM injections
   Erythromycin in eyes

10.There have been reported deaths of babies while skin-to-skin
   False
   True

11.Check the scenarios where skin to skin contact SHOULD be initiated in the OR
   -Apgars (>7)
   -scheduled
   -For failure to descend with good fetal tracing
   -known anomaly?
   -baby at risk for low apgar scores
   -mom is under general anesthesia
   -mom under spinal or epidural
   -preterm births
   -emergency cesarean sections

12. What are some of the aspects of a gentle or natural cesarean section?
   -clear drape or dropped drape
   -early skin to skin
   -delayed cord clamping
   -infant cares on mom
   encourage intra-operative breastfeeding
   - weighing baby immediately
   -separation of mom and baby during recovery
   -slow delivery process

What percent of our vaginal deliveries comply with skin-to-skin recommendations: ____

What percent of our c-section deliveries comply with skin-to-skin recommendations: ____

On a scale of 1-10 (10 being expert) what is your level of knowledge regarding skin-to-skin: ____

What are barriers to making skin-to-skin available in the OR?

What are barriers to making skin-to-skin available after all vaginal deliveries?

Jasmine Hudnall, DO

Projects Completed During Residency:

Community Health Project:

Advance Care Planning Group Visits: Instituting Honoring Choices WI in Verona

Scholarly Project:

Painful Pediatric Limp: Response to FDM, a case report -- Pediatric limp is a common presentation in primary care, and can be challenging to diagnose and treat. The authors present the case of an 11-year-old female with a painful limp. Their patient had anterior ankle pain of unclear etiology that was worse with ambulation, treated with conservative, then advanced measures - including planning for exploratory arthroscopy - before complete resolution was achieved with the osteopathic technique known as the Fascial Distortion Model (FDM). The most common causes of painful pediatric limp are septic arthritis, osteomyelitis, and trauma. While these and other diagnoses must be considered and treated, osteopathic physicians should consider FDM as a possible etiology and modality for treatment of the patient.

Infinite gratitude for my unbelievably awesome husband and children, who kept me alive and happy in residency.

– Jasmine

Jasmine Hudnall, DO, grew up in rural Massachusetts, where she was fortunate to have an early role model in her father, an integrative physician. After earning her a bachelor's degree in Biology from Reed College in Oregon, she worked as a medical assistant for several years before pursuing a medical degree from Touro University College of Osteopathic Medicine. True to her roots, Jasmine has a strong passion for integrative medicine. She was the president of the Touro University Integrative Medicine Club, and she pursued advanced training in osteopathic techniques through the Osteopathic Cranial Academy and Hacket Hemwall Paterson foundation. Jasmine took on leadership roles in the Sonoma County Medical Association and her local student chapter of the American Association of Osteopathy. She was also a regular volunteer at the Touro University Student Clinic and at a free clinic established at the local Jewish Community Center. Jasmine brings with her to Madison a passion to create positive change in the health of her community. Outside of medicine, Jasmine loves spending time with her family, writing and recording music, growing food, baking, playing outside, and martial arts.

Jasmine Hudnall, DO

Advance Care Planning Group Visits: Instituting Honoring Choices WI in Verona

Background: Death is not something most people like to talk about. When we do talk about it, most people say they would rather die peacefully at home than hooked up to machines in the hospital. We have a long way to go in engaging patients in the conversations and documentation necessary to ensure that these wishes are honored. The UW health system has >55,000 patients over age 55 who do not have any advance care plan (ACP) on file. Only 54% of our patients over age 85 have an ACP.

The WI Medical Society has an initiative called Honoring Choices WI, which aims to address advance care planning by using tools developed at Gundersen in La Crosse, WI. They define ACP as "a person-centered, ongoing process of communication that facilitates individuals' understanding, reflection and discussion of their goals, values and preferences for future healthcare decisions."

There are a few clinics within the UW Health system that are beginning to use the materials from Honoring Choices to start/continue this ongoing process of ACP, I felt Verona could be one of them.

Objectives: My goals were to engage Verona patients in a discussion about health care wishes with their health care providers and potential health care agents as well as increase the number of patients with documentation of their wishes on file. I also hoped to explore changes in attitudes or knowledge after the sessions.

Methods: I met with the UW Advance Care Planning Coordinator and discussed the possibility of doing group visits for patients in Verona. We explored the logistics and determined that it was feasible to pursue group visits. We set a date for the first meeting and began to recruit patients. I asked all providers in Verona to talk to their patients about advance care planning and refer appropriate patients over the age of 60. I also published an article in the Verona Press about "The Discussion." We held group sessions with a trained Honoring Choices facilitator leading the discussion in the Hometown room at the Verona clinic where patients could complete the ACP document with all necessary signatures.

Results: A total of 16 patients enrolled in 3 separate sessions. Nearly all these patients submitted completed advance care plans to the clinic for documentation of their health care wishes. Patients reported increased comfort with end-of-life discussions and increased knowledge about how to make sure their wishes are respected. Many patients talked with their health care agents about things that had been difficult to bring up before the sessions. Providers also reported increased discussion with their patients about end-of-life decision making.

Conclusions: Creation of a new group visit session was surprisingly easy. Staff was overwhelmingly supportive and logistics were fairly easy to navigate. Continuing group sessions are feasible and provide an effective and efficient way to help patients advocate for themselves and decrease health care costs. Advance care planning is a crucial patient-centered issue that was well received in both the clinician and patient communities.

Acknowledgements: Mia Morrisette, UW Advance Care Planning Coordinator; Mark Shapleigh, UW Health Verona Clinic Manager; Verona Clinic reception staff; Brian Arndt, MD, Verona Clinic Medical Director, Julia Yates, MSSW, LCSW Clinical Social Worker at Verona Clinic

Kira Labby, MD

A lifetime Wisconsin resident, Kira Labby grew up in the rural communities of Clintonville and Shawano. She earned a B.S. in Nutritional Sciences from UW-Madison and completed her medical degree at the University of Wisconsin School of Medicine and Public Health. She has a strong interest in rural medicine, which was fostered by her early experiences of family doctors who were able to care for anybody with any condition. She is also drawn to Family Medicine for its focus on establishing relationships and the opportunity to treat the whole patient over the course of a lifetime. As a medical student, she completed Family Medicine rotations in urban Milwaukee, where she worked with patients with limited access to healthcare, and also in Baraboo, where she worked with family practitioners who serve the full range of patients from the surrounding rural communities. She has also volunteered at the student-run MEDiC clinics, which provide free healthcare to underserved populations in Dane County, and with the University of Wisconsin Hospitals Burn Unit. In her free time, Kira enjoys traveling, reading fiction, spending time with family and friends, and playing the piano.

Projects Completed During Residency:

Scholarly Project:

TB or not TB: Diagnosis and Management of Tuberculosis for the Primary Care Physician

Quality Improvement Project:

Dr. Caitlin Hill and I led a quality improvement project during the fall of 2015 based on improving handwashing practices within the residency clinic. Through increased reminders with fun Handwashing signs in each exam room as well as patient care areas and bathrooms and easier accessibility to hand sanitizer in these areas as well we were able to acheive close to 100% compliance as reported by patients for both nursing staff and clinicians.

Thank you so much to all my family and friends who helped me through this amazing journey of residency.

– Kira

A Wee Bit o' the Consumption

TB or not TB?

Kira Labby PGY3
Primary Care Conference 1/6/16

Objectives

Review microbiology and pathophysiology of TB

Overview of diagnostic process

Briefly discuss management of LTBi

Examine epidemiological patterns of TB in Wisconsin

Case study #1

November 2012: A 55 yo self employed, uninsured man without known cardiopulmonary hx presents to a local UC with a "nagging cough"

worsening for weeks-ish along with DOE

CXR shows BUL opacities

Ddx ?

March 2013: represents to a different clinic with progressive DOE

repeat CXR shows no abnormalities

Ddx - ?

Sxqp rqdu|#Wxehufxorvlv

Tuberculosis (TB) is a disease caused by bacteria (Mycobacterium tuberculosis) that are spread from person to person through the air.

TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys, or the spine.

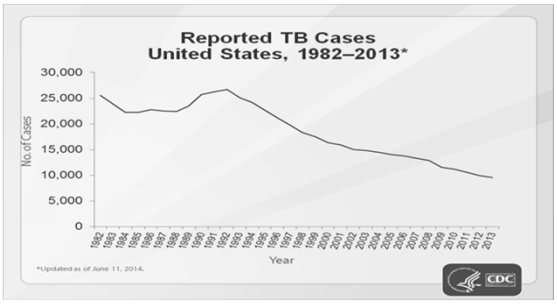
In most cases, TB is treatable and curable

TB is also known as: "The White Plague" "Consumption" "Phthisis" "Scrofula" "Wasting Disease" "King's Evil"

Idp rxv#Shrsoh#Zlk#E

- King Tutankhamun
- John Keats
- Ralph Waldo Emerson
- Elizabeth Barrett Browning
- Edgar Allen Poe
- Franz Kafka
- Emily Bronte
- Eleanor Roosevelt
- Adolf Hitler
- Doc Holliday
- Nelson Mandela

US trends in TB



Wisconsin trends in TB

https://www.dhs.wisconsin.gov/tb/index.htm

Mycobacterium

Subgroup of Corynebacterineae (gram positive)

Hardy cell wall makes them neither GP or GN

Mycobacterium tuberculosis (complex)

TB in humans and other organisms

Mycobacterium avium (complex)

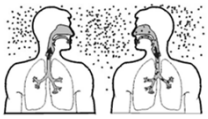
immunocompromised patients - respiratory and disseminated infx

Mycobacterium leprae

leprosy

Transmission

- Respiratory spread
- Depends on:
  - how sick is pt?
  - how much time was spent with pt?
  - where was time spent with pt?



Persons at Higher Risk for Exposure and TB Infection

- Close contacts of person with TB disease
- Foreign-born persons, including children. (Asia, Africa, Eastern Europe, Latin America, Russia, etc.) This includes persons who have spent extensive time living in a high risk country.
- Residents & employees of congregate settings (e.g., correctional, long-term-care, homeless shelters.) This is RARE in Wisconsin, except for Milwaukee jail.
- Health care workers who serve patients who are at high risk
- Populations locally defined who are medically underserved and have low income

More on Case #1.....

2015: presented to walk-in clinic again with a cough (now the third presentation) and DOE to the point that he could no longer work

Upon further questioning....

Natural History of Infection

Primary tuberculosis

new infection in naive host

90 percent of enter a "latent" phase.

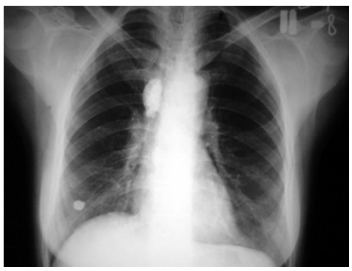
other 10 percent of individuals develop active primary TB pneumonia

CXR: often normal, but can see hilar adenopathy, pleural effusions, infiltrates (usually RML). Can also see Ghon Complex (subpleural granuloma with associated hilar adenopathy)

stable fibronodular infiltrates and calcified granulomas suggest previous active TB

CMI develops within 2-10 weeks

CXR resolves in months - years (usually)



Natural History of Infection, continued

Reactivation tuberculosis

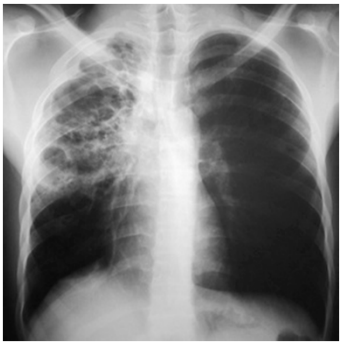
- results from previously seeded focus of infection
- usually when host's immunity wanes
- Classic sx: fever, cough, dyspnea, wasting
- Classic CXR: cavitary lesion upper lobe infiltrates,
  - May also see segmental infiltrates, hilar adenopathy, masses, fibronodular disease
  - May be difficult to distinguish from latent TB

Terminology: TB infection vs active TB disease

Active TB disease

- TB skin test or IGRA positive
- Abnormal CXR (rarely can be normal)
- AFB may or may not be present on sputum smear
- Culture should show AFB

- Person has symptoms of disease
  - classic vs atypical sx
- Person is contagious, degree related to number of AFB present in sputum



TB disease - complications

hemoptysis

tissue destruction

bronchiectasis

PTX

extension of disease: bronchial TB, laryngeal TB

Diagnostics

- TB skin test - screening method
  - Different criteria for tuberculin positivity by risk group
- IGRA (Interferon Gamma Releasing Assay)
  - Commercial tests available: Quantiferon TB Gold, T-Spot
  - Not affected by BCG vaccine
  - Sensitivity 80-90%, specificity >95%

How is TB diagnosed, con't

- CXR
  - classic vs atypical appearance
  - possible to have negative CXR in active disease (<5%)
- CT
  - more sensitive
- sputum smear - looking for AFB
  - required if +CXR or +sx
  - three samples needed
  - induced vs spontaneous
- sputum culture
  - gold standard
  - can take 3-8 weeks to grow
  - "culture negative TB"

Back to Case 1

2015: TB suspected:

- quantiferon positive
- CT shows cavitary lesions in RUL
- sputum collected: positive for AFB in 2 of 3
- Sputum culture: in process
- Now what?

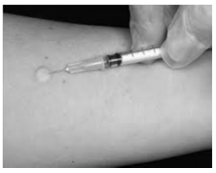
Case 2

25 yo woman applying for CNA position. PPD required.

- PPD largely positive
- interferon positive

She is asymptomatic. CXR negative.

- is sputum smear and culture required?
- diagnosis?



Latent TB infection (LTBI)

- Person has been infected with Mycobacterium tuberculosis
- Person is harboring M. tuberculosis in "dormant" state
- + PPD skin test or IGRA (Interferon-gamma release assay)
- Negative CXR
- No symptoms, not contagious
- Without treatment, about 10% will develop active disease in their lifetime, half of them within 2 years of infection

Persons at High Risk for Progressing from TB infection to TB Disease

- Persons with HIV
- Persons infected with TB past 2 years
- Infants and children <5 years of age
- Persons with a compromised immune system, or who are receiving immunosuppressive therapy
- Persons with history of untreated or inadequately treated TB active disease

Risk For Developing Active TB Disease

No risk factors: 10% lifetime risk, most notably in first 2 years after diagnosis

Diabetes: 30% lifetime risk

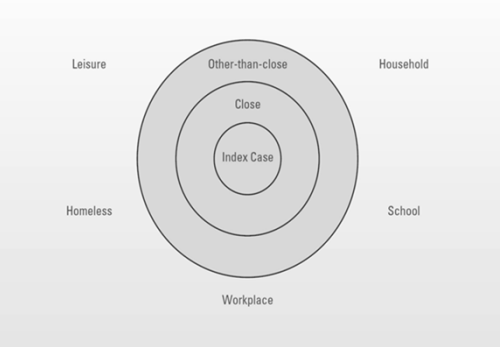
HIV infection: 7-10% annual risk

PUBLIC HEALTH RESPONSE TO A CASE OF ACTIVE TUBERCULOSIS

- ISOLATE THE PERSON IF THEY ARE INFECTIOUS
- TREAT THE PERSON WHO IS SICK AND DETERMINE WHEN THEY ARE NO LONGER INFECTIOUS
- CONTACT INVESTIGATION TO IDENTIFY PEOPLE AT RISK OF EXPOSURE TO ACTIVE TB CASE
- TEST ALL PEOPLE IDENTIFIED AS CONTACTS, FOLLOWING CONCENTRIC CIRCLE TESTING
- ENSURE THAT ANY PEOPLE NEWLY DIAGNOSED WITH TB INFECTION GET A CHEST XRAY AND EXAM, AND ARE OFFERED TREATMENT FOR LATENT TB INFECTION

CONTACT INVESTIGATION

- The health department will be notifying those who need to be tested.
- Testing begins with close contacts. A close contact is defined as: A person who has had prolonged, intense or frequent contact (on average 8 or more hours per week) with the TB patient during the infectious period. The extent of exposure also depends on environmental conditions.
- Concentric circle testing of contacts: A method of classifying and screening contacts in order of intensity of exposure and risk of being infected. Contacts with the most exposure or highest risk of infection are screened first.



Back to Case #2....

Upon further questioning....

Brief overview of Drug regimens

LTBi

isoniazid daily for 9 months

OR

rifampin daily for 4-6 months

OR

weekly isoniazid with rifapentine for 12 weeks

Drug Interactions and Precautions

Brief overview of Drug regimens, continued

Active TB disease

- Initiation phase - 2 months
  - isoniazid
  - rifampin
  - ethambutol
  - pyrazinamide (omitted in pregnancy)

After 2 months, sputum culture is rechecked

- Continuation phase
  - generally 4 more months of INH and rifampin

Monitoring Therapy

generally retest sputum smear and culture after 2 months of initial therapy, if still positive retest sensitivities

Recollect sputum monthly, must continue treatment until at least 2 consecutive negatives obtained

Hepatic monitoring: baseline LFTs required, retest in setting of increased hepatotoxicity risks

CBC monitoring

watching out for side effects

Back to Case #2...

Started on DOT for LTBi.

Outcome….

SUMMARY

- Tuberculosis is an infectious disease that is spread from person to person, through the air. It requires prolonged contact with the person who is sick.
- Latent TB is the inactive form of the disease, where the infection is dormant, unable to make the person sick or to be spread from one person to another
- Active TB is the form of the disease where the person is sick and is potentially able to spread the infection to others.
- The health department is conducting a contact investigation and will be notifying those who need to be tested.

Rachel Lee, MD

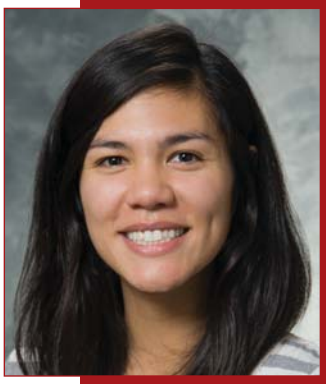
Projects Completed During Residency:

Community Health Project:

Lakeview Elementary - Northeast Clinic Food Insecurity Project

Scholarly Project:

FPIN article addressing the question, "Does marihuana use in the teen years predict development of a future substance use disorder in adulthood?" I have not yet completed this project.



A Michigan native, Rachel Lee completed her undergraduate degree in Biology from the University of Michigan–Ann Arbor before attending medical school at Wayne State University School of Medicine. Rachel was drawn to Family Medicine for its emphasis on community health and the healing relationship between doctor and patient. The breadth of Family Medicine is also conducive to her diverse interests, which include women's health, community health and underserved medicine. As a medical student, Rachel organized a women's procedures night and an educational lecture on contraception in her role as coordinator for the Medical Students for Choice group. She was also a regular volunteer at the Wayne State Student-Run Free Clinic and at Cass Clinic, a free clinic for the homeless and uninsured living in Detroit's Cass Corridor. Rachel also completed a summer-long externship at the Henry Ford Health System Emergency Department, where she researched emergency physician bias towards patients who frequently present to the emergency department. When she has free time, Rachel's hobbies include motorcycling, spending time with her family and cooking.

Lakeview Elementary - Northeast Clinic Food Insecurity Project

Background: The setting of this project was Lakeview Elementary School, which is located only three blocks from Northeast Clinic. This school's student body is racially and ethnically diverse, with 29% white students, 25% black students, 16% asian students and 11% hispanic students. 77.7% of Lakeview students live under the federal poverty line and 7% are homeless. Our team included myself, Sagar Shah, who is a former resident, Jennifer Edgoose, who is a faculty member, and Erik Anderson who is a UW medical student. We conducted an informal needs assessment among parents of Lakeview students and and administrative staff who identified food insecurity as a top health priority.

Objective: The goal of this project was to bring new and creative approaches to solving the problem of food insecurity at Lakeview Elementary. My role included creating an informal needs assessment, spearheading a weekend food backpack program and supporting a school-based food pantry program.

Methods: We partnered with the Second Harvest Food Bank and surrounding food pantries, including the River Food Pantry and Lakeview Lutheran Church Food Pantry, to address this issue. Our first project involved a weekend backpack program in which we targeted the most food insecure families at the school. We crowd sourced funds to buy easy-to-prepare, non-perishable foods and distributed them to the families on a bi-weekly basis. Through the community partnerships that grew out of the initial backpack program, we went on to create a more sustainable school-based food pantry program. In this program, a local food pantry makes weekly deliveries of food to the families. In contrast to the weekend backpack program, families are able to select desired perishable and non-perishable food from a weekly menu.

Results: Both programs targeted the 10 most food insecure families at the school, so the scope was relatively small. The families expressed a lot of gratitude for the extra food provided by the backpack program. Going forward, we hope that the food pantry project will provide the families with a convenient and consistent way to access healthy food over the weekend.

Conclusions: The backpack program, while well intentioned, was not a sustainable project. This was due to the limited amount of funds that we crowd-sourced. Another issue was that the food provided in the backpack program was non-perishable and therefore more processed and lower in nutritional value. While it is still in the early stages, we hope that the school-based food pantry project will be more effective in terms of sustainability, family empowerment and nutritional value. Future plans include expansion of the food pantry to involve a greater number of families at the school and a formal assessment of the efficacy of this project. Through these projects, I have learned that effective community partnerships begin by listening. They require consistency over time in order

to foster authentic relationships, learn through trial and error, and course-correct. Through my work with the Lakeview Elementary staff, students, and families over the past 2 and half years I have gained a deeper understanding of my community, which ultimately makes me more effective in my work at the Northeast Clinic.

Acknowledgements: My advisor and mentor in this project is Jennifer Edgoose. Community partners include Pastor Gerry at the Lakeview Lutheran food pantry, Gina Wilson and Andrea Draeger of the Second Harvest Food Bank. Sagar Shah is a former resident who helped pilot the backpack program and Erik Anderson is a medical student who created a community flyer with details about local food pantries. Funds for the backpack program were crowd sourced using the website www.youcaring.com.

Julia Lubsen, MD

Projects Completed During Residency:

Community Health Project:

Improving Access to Advance Care Planning at Northeast Clinic

Scholarly Project:

Addressing Depression and Burnout among University of Wisconsin-Madison Family Medicine Residents: Given the pervasiveness of burnout and depression in the medical profession and especially in residency education, the UW Family Medicine Graduate Medical Education Committee (GMEC) requested more information about this issue from residents. Josh Schulist and I created a survey reflecting key components of prior studies on residency burnout and depression. This was sent anonymously to all residents at both the Madison and Baraboo programs. We are currently evaluating the data and will present our findingstothe GMEC. Our goal is to use this data to raise awareness about resident burnout and depression and to suggest changes that will address this crucially important issue.

Originally from Virginia, Julia Lubsen earned her bachelor's degree in Neurobiology from Harvard University and her medical degree from Yale University. Julia brings to Family Medicine a passion for providing care to underserved patients. During medical school, she was an active volunteer, then co-director of the student-run HAVEN Free Clinic, which provides care to uninsured patients in a predominantly Latino community in New Haven. Julia also has strong interests in disease prevention, nutrition, and primary care delivery. As a research fellow with the Fair Haven Community Health Center, she studied the relationship between family functioning and participation in an intensive lifestyle intervention to prevent diabetes. During residency she developed a growing interest in caring for elderly and medically complex patients. She will be starting a fellowship in geriatrics at UW this summer. In her free time she enjoys running, rock climbing, knitting, cooking, and playing the piano.

I would like to thank my family for their endless love and support. I am also incredibly grateful to the wonderful friends I have made during residency. I love you all!

– Julia

Community Health Project

Anna Veach, DO and Julia Lubsen, MD

Title: Improving Access to Advance Care Planning at Northeast Clinic

Background: Advance care planning (ACP) is "a process across time of understanding, reflecting on and discussing future medical decisions, including end-of-life preferences."[1] During this process most people complete a written advance directive expressing their wishes, which includes appointing a healthcare power of attorney (HCPOA). ACP is critical for ensuring that people's wishes are honored at the end of life and eases the burden of decision-making placed on caregivers and loved ones.

In November 2012, only 6.4% of patients over 65 years old at Northeast Clinic had basic advance directives completed and uploaded into their charts, and among adults over 18 years old the completion rate was only 1.5%. In response to these low rates, former Northeast resident Ann Braus, MD initiated a quality improvement project that aimed to increase the completion rates for HCPOA documents and make these documents easily accessible in the medical record.

At that time UW Health began participating in a program called Honoring Choices Wisconsin, which promotes ACP discussions. During Honoring Choices appointments a trained facilitator helps patients and families discuss health care and end-of-life preferences and complete a comprehensive advance directive that designates a HCPOA and describes the patient's wishes. Dr. Braus initiated a partnership between Northeast Clinic and Honoring Choices. We continued work on this project and in 2015 Northeast Clinic became the first primary care clinic in the UW system to pilot Honoring Choices Wisconsin for adult patients.

Objectives: Our primary objective was to provide Honoring Choices ACP appointments at the Northeast Clinic on a small scale, and to identify successes and challenges with implementation of this service in a primary care clinic in preparation for offering the service to all Northeast patients.

A secondary objective was to increase awareness about ACP among the staff at Northeast Clinic in an effort to improve support for the service and increase its sustainability.

Roles: We both referred patients on our panels for ACP visits in the pilot phase of the project, worked closely with a team of people from the clinic to implement ACP visits at Northeast, and created a plan for making the visits accessible to all patients in the clinic.

Julia Lubsen created and delivered a presentation for all staff at Northeast at an education afternoon, kept meeting minutes, and facilitated planning for sustainability of the program at Northeast and UW Health as she moves into the UW Geriatrics Fellowship.

[1] Honoring Choices Wisconsin

Anna Veach attend an Honoring Choices group ACP visit for staff and developed methods of sharing information through the EPIC EMR about patients interested in ACP or going through the ACP process, and facilitated communication between the front desk and providers about ACP visits.

Methods: Starting in December 2014 we began meeting with Mia Morrisette, CSW, MBA who is a trained ACP facilitator and the program coordinator for Honoring Choices at UW Health, to discuss implementing Honoring Choices at Northeast Clinic. Several Northeast staff attended training to become ACP facilitators. During regular meetings with the facilitators and other clinic staff we created a scheduling template for ACP appointments, identified our own patients who were interested in ACP, created a system for tracking these patients and the outcomes of ACP visits, and created a clinic workflow to allow all clinic providers to offer ACP visits to their patients.

We gathered patient feedback during a Northeast Patient and Family Advisory Committee meeting regarding the program. We provided information about ACP to patients in the waiting room on National Healthcare Decisions Day and set up a permanent waiting room display with information. We also educated faculty, residents and clinic staff about the importance of ACP through presentations at clinic education afternoons and through a facilitated group ACP visit for nursing staff. A similar group visit for residents and faculty is planned in May 2016.

Results: As of May 1, 2016, 115 Northeast patients have been referred for an ACP visit. Of these patients 40 (35%) have completed the process and have an advance directive scanned into their chart. There are 28 patients who are interested or going through the process, 32 patients were sent letters if they were difficult to reach or had one visit and have not yet followed-up, and 15 patients were ultimately not interested in an ACP appointment.

Conclusions: We have successfully implemented Honoring Choices at Northeast Clinic and have expanded the program so that any provider can refer their patient for an ACP visit. We also educated clinic staff about the importance of advance care planning. The program has been well-received by patients and clinic staff.

One of the most important lessons we learned was how challenging it is to facilitate communication about a clinic-wide initiative between all parts of the clinic. We are still refining the process of scheduling ACP visits to make this clear for all staff and to improve communication. Another challenge was advocating for clinic staff to be able to devote time to this program while still performing their other clinical duties. Educating staff about the importance of this issue helped us gain support.

We also learned a great deal about the huge benefits of ACP to patients and to our healthcare system, and feel passionate about the importance of providing this service to patients. Our greatest reward was hearing how happy patients were with the service and and hearing a growing excitement about this issue among our colleagues.

Acknowledgments: We also reflect on the profound group effort that this project required and feel honored that we had the opportunity to learn from the incredibly devoted people and patients at the Northeast clinic. We were especially inspired by the tireless devotion of Mia Morrisette and Jean Skinner. We would also like to gratefully acknowledge Christina Lightbourne, Olga Arrufat-Tobon and the entire Northeast staff and Northeast patients for their participation in this project.

Advance Care Planning at Northeast

Jean Skinner, Mia Morrisette, Julia Lubsen, Anna Veach
January 26, 2016

What is Advance Care Planning?

Advance care planning (ACP) is a process across time of understanding, reflecting on and discussing future medical decisions, including end-of-life preferences.

What is Advance Care Planning?

- Helps an individual understand, reflect upon and discuss goals, values and beliefs regarding future healthcare decisions.
- Has the power to produce a written plan **(advance directive)** that accurately represents the individual's preferences
- Prepares others, especially an appointed health care agent **(power of attorney for health care)**, to make healthcare decisions consistent with these preferences
- Communicates the person's wishes with family, friends, clergy, other advisors, physician and other health care professionals.
- Makes the advance directive available in the medical record.

Honoring Choices Wisconsin

- Advance care planning conversation between patient and their designated health care agents, led by a trained facilitator
- Based on Respecting Choices – ACP model in LaCrosse, Wisconsin

Honoring Choices WISCONSIN
AN INITIATIVE OF THE WISCONSIN MEDICAL SOCIETY

Respecting Choices®
GUNDERSEN HEALTH SYSTEM

ACP at Northeast

- December 2014 – NE ACP team started meeting
- First UW primary care clinic to implement ACP
- Trained facilitators: Mia Morrisette, Jean Skinner, (Olga Arrufat-Tobon, Christina Lightbourn)
- Created schedule in EPIC for facilitators
- March 2015 – started ACP visits

ACP at Northeast - Pilot

- Initial goal: Offer ACP to 50 patients
- Anna, Julia, Russ offer ACP visits to patients over 60
- Warm handoff with facilitator if possible
- Add patients to ACP patient list in EPIC
- Follow-up phone calls by facilitators to schedule appointments
- ACP visit(s), scan advance directive to chart

ACP at Northeast

- March 2015 – PFAC Meeting
- April 2015 – Education Afternoon Intro to ACP
- April 2015 – National Healthcare Decisions Day
- October 2015 – Group ACP visit for nursing staff at Education Afternoon; then follow-up visit
- Tomorrow – ACP group visit at Dryden Terrace

ACP at Northeast

Number of patients	%	
22	29%	Completed Advance Directive
11	14%	Other (had documents brought in for scanning when prompted, or not interested)
44	57%	In process (may have been called, had 1st visit but not 2nd)
77		Patients Referred for ACP

Successes

- Patients in the waiting room acting as witnesses
- Visits conducted in multiple languages; visit with a patient who has difficulty speaking after a stroke
- Clarifying patients' goals
- Forms filled out correctly

Challenges

- Scheduling
- Time needed to call patients
- Patient follow through

New ACP Data

18+, UW Health PCP, WI Address

Clinic	% with Advance Directive
Northeast	**12.7**
UW Health	12.3
Arboretum	11.7
Verona	11.5
Belleville	9.6
Augusta	7.0

UW Health

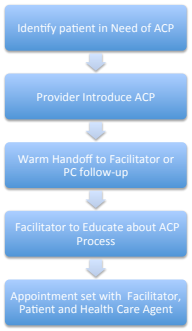
177,842

Patients over 18 in need of an ACP

53,418

Patients 55 and older in need of ACP

Process at Northeast



UW Health

Talking About ACP

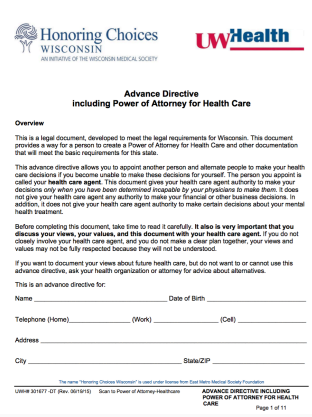
- PFAC felt that clinicians should talk about this program with patients rather than cold calls from facilitators
- Warm handoff with facilitator
- Handouts available above Jean's old desk
- Do not give patient document before the visit
- Visits are FREE

Talking About ACP

- " An advance directive helps make sure we know your wishes."
- "I have completed my advance directive, and I think every adult should."
- "A facilitator can meet with you and your Health Care Agent to make sure we understand your wishes very well."

ACP Visit

- What gets covered in a visit
- Honoring Choices document for advance directive – compare to WI state document



Honoring Choices WISCONSIN
AN INITIATIVE OF THE WISCONSIN MEDICAL SOCIETY

UW Health

Advance Directive
including Power of Attorney for Health Care

Overview

This is a legal document, developed to meet the legal requirements for Wisconsin. This document provides a way for a person to create a Power of Attorney for Health Care and other documentation that will meet the basic requirements for this state.

This advance directive allows you to appoint another person and alternate people to make your health care decisions if you become unable to make these decisions for yourself. The person you appoint is called your **health care agent**. This document gives your health care agent authority to make your decisions only when you have been determined incapable by your physicians to make them. It does not give your health care agent any authority to make your financial or other business decisions. In addition, it does not give your health care agent authority to make certain decisions about your mental health treatment.

Before completing this document, take time to read it carefully. **It also is very important that you discuss your views, your values, and this document with your health care agent.** If you do not closely involve your health care agent, and you do not make a clear plan together, your views and values may not be fully respected because they will not be understood.

If you want to document your views about future health care, but do not want to or cannot use this advance directive, ask your health organization or attorney for advice about alternatives.

This is an advance directive for:

Name _____ Date of Birth _____

Telephone (Home)_____ (Work) _____ (Cell) _____

Address _____

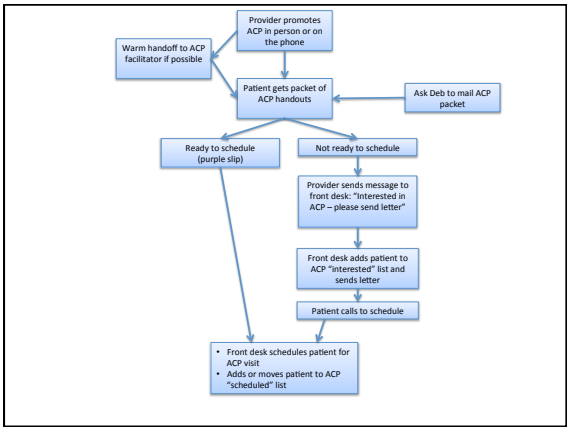
City _____ State/ZIP _____

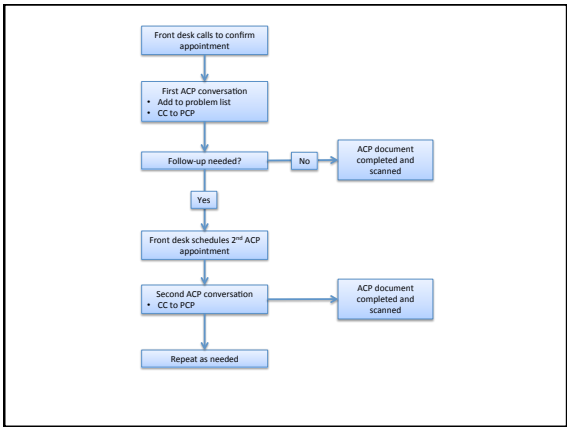
The name "Honoring Choices Wisconsin" is used under license from East Metro Medical Society Foundation

UW® 301677 -DT (Rev. 06/19/15) Scan to Power of Attorney-Healthcare ADVANCE DIRECTIVE INCLUDING POWER OF ATTORNEY FOR HEALTH CARE
Page 1 of 11

Some EPIC Tips

- Problem List: "Advance Care Planning"
- FYI: "Advance Directive"
- Consent/Legal Tab: copy of advance directive
- Encounter: Advance Care Planning
  - Filter by encounter type
- Telephone Encounter: Advance Care Planning as "Reason for Call"
- Demographics: NOT helpful – ignore this





Expanding Northeast ACP

- Open up to all providers
- More facilitators
  - Chaplin at UW coming in the evenings
- Group visits
- Patient survey or focus groups
- More ACP visits for staff

Future Directions

- Right now UW is implementing First Steps (healthy individuals or adults with chronic illness)
- ACP Module in EPIC – free with upgrade Nov 2016?
- Some states have registries of advance directives, Wisconsin does not yet
- Service billable to Medicare

Medicare to Pay for ACP

- Medicare authorized to pay for advance care planning starting January 1, 2016
- **99497** Advance care planning including the explanation and discussion of advance directives such as standard forms (with completion of such forms, when performed), by the physician or other qualified health care professional; first 30 minutes, face-to-face with the patient, family member(s), and/or surrogate
  - 2016 work RVU: 1.50 NGS Medicare (par, NF): $83.14
- **99498**…each additional 30 minutes
  - 2016 work RVU: 1.40 NGS Medicare (par, NF): $72.37

Julia McMillen, MD

Projects Completed During Residency:

Community Health Project:

Partnering with SAPAR, the Madison School Age Parenting Program

Scholarly Project:

I collaborated with Dr. Sarina Schrager, Dr. Ronni Hayon, and Dr. Jensi Carlson on a review of the literature surrounding management of menstrual migraine, with particular focus on the use of estrogen in women who experience migraines with aura, given the increased stroke risk. Our manuscript entitled "Menstrual Migraines: Evidence Based Treatment Options" will soon be published in the Journal of Family Practice.

Julia McMillen grew up in Memphis, TN, and earned undergraduate degrees in Biology and Women's and Gender Studies at Washington University in St. Louis. She then returned to Memphis to pursue her medical degree at the University of Tennessee Health Science Center College of Medicine. After residency, Julia will be joining the Dean Clinic in Sun Prairie, where she will be providing primary care with obstetrics. She very much looks forward to working with our residents on labor and delivery in the future, and helping them to see how rewarding a continuity OB practice can be. She will also be working with Planned Parenthood a few days a month to expand access to reproductive choices in Wisconsin.

Thanks to my partner Steve for all his his support throughout residency! Thanks to all my delightful and talented classmates for all the laughs, hugs, and for keeping each other going! Thanks to Kathy, Ronni, Lou, Sarina, Russ, Adrienne, Bill, Jennifer, Dave, Taryn, Patrick and all the Northeast staff for shaping us into knowledgeable and compassionate family doctors!

– Julia

Community Health Project Write-Up - Julia McMillen

Title: Partnering with SAPAR, the Madison School Age Parenting Program

Background: SAPAR is a program within the Madison City Schools that aims to provide a specialized supportive curriculum to prepare pregnant teens for parenting in a nonjudgmental community setting. SAPAR also provides credits across other subjects that are necessary for graduation, and SAPAR students have a higher high school graduation rate than pregnant and parenting teens outside the program. Students in the program can also bring their infants to the daycare in the same building, which helps teen moms continue their education after birth and encourages breastfeeding.

Objectives: The goal of this project was to provide additional resources to enhance the curriculum for the students.

Methods: Educational needs of the students were discussed with Carol McQuade, a nurse who coordinates the health-based curriculum to determine topics that could be enhanced over the next two years. Lee Dresang and I brought the ultrasound from Wingra clinic to several classes and did scans with the students as a group to promote bonding with their babies and to discuss fetal development. Cadaveric organs from the medical school were used to discuss anatomy, physiology, and how our lifestyle choices affect our health later in life. We frequently had "ask a doc" small group question and answer sessions before each class as well to provide time to discuss concerns ranging from prenatal care, newborn care, breastfeeding, and postpartum contraception options.

Results: Though no formal quantitative assessments were performed, Carol the coordinator was very pleased with the student's engagement and excitement over the curriculum resources that were provided, and the students seemed to enjoy the extra activities that were provided by this project. At the conclusion of this project with SAPAR, less than one year of grant funding remained that provide low-cost daycare for the students as well as staff salaries, and there was concern that the program as it is today may no longer be able to continue. With the help of Ronni Hayon, I contacted a reporter at the Isthmus about this concern in order to advocate for SAPAR. A phone interview was conducted about the SAPAR program, which may be featured in an upcoming issue of the paper.

Conclusions: Supportive individualized curriculum programs like SAPAR can be effective in preparing high-risk and potentially vulnerable community of pregnant teens for both high school graduation and parenting. I would support further advocacy for the continuation of the program in Dane County.

Acknowledgments: Thanks to Carol McQuade, RN, Dr. Lee Dresang, and Dr. Ronni Hayon or their support.

Vincent Minichiello, MD

Projects Completed During Residency:

Community Health Project:

Community-Supported Clinic-Based Obesity Group Visits: Effects on Quality of Life, Mental Health, & Healthy Lifestyle Change

Scholarly Project:

Integrative Medicine, 4th Edition, chapter author on "Therapeutic Breathing" and "Relaxation Exercises" -- During my second and third year of residency, I collected the latest evidence on both the topic of therapeutic breathing techniques and relaxation exercises and wrote two chapters on these topics for the 4th edition of Integrative Medicine, David Rakel, editor. These chapters also included materials for patient use.

Vinny Minichiello grew up in Peabody, Massachusetts, and completed undergraduate degrees in Biology and East Asian Studies from Boston University. After college, he studied Traditional Chinese Medicine at the New England School of Acupuncture before beginning medical school at the University of Massachusetts. Vinny is passionate about integrative medicine. As a medical student he participated in a exchange program with three hospitals in China, where he spent time with physicians who were integrating Western medicine and traditional Eastern medicine in the hospital setting. He then brought this knowledge back to the UMass Cancer Center where he co-founded the Integrative Oncology Initiative, a student-run mind-body medicine group that meets weekly to teach deep breathing exercises, tai chi, restorative yoga, and guided imagery to cancer patients, family members, interested cancer center staff, and medical students. In addition, he completed the University of Arizona Integrative Medicine Elective Rotation and studied Osteopathic Manipulation Therapy in Augusta, ME. He is also fluent in Mandarin Chinese and served during college and medical school as a volunteer and free-lance interpreter. In his free time, Vinny's hobbies include piano, Tae Kwon Do, Kung Fu, and Tai Chi.

I would like to express deep love and gratitude for my "Number One," my wife Annmae. Between her work as a pharmacist and my work as a resident, these past three busy years have provided fertile ground for us to grow more in our mutual trust, support, and love. Much thanks to my family who continually encourages me to listen to my heart and pursue the life of a healer. Finally I am blessed to be inspired and uplifted by my many mentors and colleagues in the UW Family Medicine and Community Health department, especially Brian Arndt, Bruce Barrett, Don Carufel-Wert, Bob Gillespie, Dave Rakel and Adam Rindfleisch.

– Vinny

Title: Community-Supported Clinic-Based Obesity Group Visits: Effects on Quality of Life, Mental Health, & Healthy Lifestyle Change

Background: More than 1/3 of US adults (78.6 millions) are obese and obesity has physical, psychosocial, and functional consequences. The national Healthy People 2020 Initiative set goals of increasing the proportion of adults who are at a healthy weight and decreasing the proportion of adults who are obese. The UW Heath Verona clinic's patient population has obesity as the most prevalent "problem" as drawn from data in the Epic electronic medical record. As a result, in 2014 the UW Health Verona Clinic founded the "2020 Fitness and Lifestyle Challenge" as a way of both meeting these national goals and addressing the needs of our clinic.

Objectives: The goal of this group project at the Verona clinic was to create local community partnerships that would support and participate in clinic-based obesity group visits. I was involved in this project from its inception in 2014 and am now helping with the third cohort. Specifically, I helped recruit community partners at lunch meetings, co-led one of the group sessions on mindful eating, and co-recorded/led video recordings of deep breathing, gentle stretching and chair yoga that were used by patients in between the monthly group visits. These were components of this project that were integrated into the complete program outlined below.

Methods: The local partners who worked with us in this project included 3 insurance companies, two grocery stores, a fitness center, and yoga instructor. Altogether there were 6 group visits, 1 visit per month, with each visit lasting 90 minutes. The curriculum involved 15 minutes of checking in/obtaining vital signs, 25 minutes of guided stretching/relaxation exercises, 30 minutes of eating a healthy meal/topic discussion and 20 minutes of small group personal goal setting. Discussion topics included mindful eating, reading nutrition labels, using Therabands, hosting guest speakers who talked about their personal struggles with obesity, and having conversations about barriers/roadblocks to arriving at a healthier weight. To track the effects of this program on our patient population we obtained pre and post-intervention data for each cohort including PHQ-9, SF-36, weight, as well as a tool designed specifically for this study entitled "fitness and lifestyle challenge self-assessment".

Results: These group visits led to statistically significant improvement in emotional well-being and pain based on SF-36 sub-scores. In addition there was a significant improvement in PHQ-9 depression scores by 2.4 points. Participants also lost an average of 5 pounds. The Self-Assessment questionnaire showed a statistically significant improvement in several healthy lifestyle behaviors including increased confidence in reaching personal goals, knowing what foods/how much to eat, knowing how to shop for/prepare healthy meals. This questionnaire also showed improved planning for meals in advance, knowing how to start an exercise program, and knowing how to use a pedometer. Overall, this community project impacted the other group leaders and myself by demonstrating the power of community involvement and group-based care in allowing for a healthier lifestyle in our obese patients.

Conclusions: It is our hope that the data results from the 2014 and 2015 cohorts will inspire other clinicians to work closely with local communities in an effort to address prevalent health concerns related to patients' needs at their clinic. I learned about the health benefits of a comprehensive community-supported clinic-based group visit curriculum like the one we designed, and also about how enjoyable it is to allow for lifestyle improvement to arise from group participants themselves. The challenges that came out of this project and recommendations for future programs come from this last statement. How can we allow space for patients to feel more empowered to set and attain goals for themselves? And how can we

broaden the inclusion criteria for this group visit to include not only obese patients, but all patients who desire to improve their health by connecting more with the clinic and local community?

Acknowledgements: Many thanks to our community partners including Anytime Fitness, Miller & Sons Supermarket, Hy-Vee, GHC insurance, PPIC insurance, Unity health insurance, Jo Temte for teaching the guided stretching/relaxation exercises, and Ryan Yates and Kara Hoerr for preparing nutritious meals for the participants at each meeting. Thanks to Ron Prince who was the statistician on this project. I want to especially thank my mentors and the leaders of these group visits - Brian Arndt, Maggie Larson, Julia Yates, and Tom Hahn. This project was funded by a Department of Family Medicine and Community Health small grant.

Community-Supported Clinic-Based Obesity Group Visits: Effects on Quality of Life, Mental Health, & Healthy Lifestyle Change

Vincent Minichiello, MD; Thomas Hahn, MD; Magnolia Larson, DO; Julia Yates, LCSW; Ronald Prince, MS; Brian Arndt, MD
Department of Family Medicine and Community Health, University of Wisconsin-Madison

Introduction

- More than 1/3 of US adults (78.6 million) are obese[1]
- Obesity has physical, psychosocial and functional consequences[2]
- Healthy People 2020 goals:
  1) increase the proportion of adults who are at a healthy weight
  2) decrease the proportion of adults who are obese[3]
- In 2014 the UW Health Verona Clinic initiated the "2020 Fitness and Lifestyle Challenge" as a way of meeting these goals by creating local community partnerships to support obesity group visits

Materials and methods

- Prospective cohort study
- Local partners included 3 insurance companies, two grocery stores, a fitness center, and yoga instructor
- 6 group visits, 1 per month, 90 minutes per visit

Table 1. Group Visit Session Format

Curriculum Elements	Time (min)
Checking in, vital signs	15
Guided stretching/Relaxation exercise	25
Healthy meal/Topic discussion	30
Small group personal goal setting	20

- Discussion topics: mindful eating, reading nutrition labels, using Therabands, guest speaker (personal journey), barriers and roadblocks (maintenance)
- Between visits: weekly emails with grocery list/recipes, deep breathing and gentle stretching videos, Theraband videos
- For 2014 cohort: pre and post-study PHQ-9, fitness & lifestyle challenge self-assessment, weight
- For 2015 cohort: pre and post-study SF-36, PHQ-9, fitness & lifestyle challenge self-assessment, weight

Results

2014 Cohort
18 adults
(average BMI 39.4)
→ 13 completed post-study assessments

2015 Cohort
19 adults
(average BMI 37.6)
→ 12 completed post-study assessments

Significant Data Results Highlighted in Blue

Table 2. Self-Reported Health Status*

SF-36 Scores	Average Baseline Score	Average Follow Up Score	p-value
Physical functioning	69.21	80.00	0.131
Limitations due to physical health	54.17	83.33	0.105
Limitations due to emotional problems	69.44	86.11	0.256
Energy	44.58	53.33	0.216
Emotional well-being	**64.00**	**77.67**	**0.016**
Social functioning	78.13	82.29	0.578
Pain	**58.54**	**76.88**	**0.004**
General health	50.83	62.50	0.063

*Data from 2015 cohort only, n = 12; Score Range 0 to 100, 0 = complete disability, 100 = no disability

Table 3. Depression Assessment**

Measure	Average Baseline Score	Average Follow Up Score	p-value
PHQ-9	**6.00**	**3.56**	**<0.001**

**Data from 2014-2015 cohorts, n = 25; Score Range 0 to 27, 0-4 = minimal depression, 5-9 = mild depression, 10-14 = moderate depression, 15-19 = moderately severe depression 20-27 = severe depression

Table 4.Weight Changes^

Measure	Average Baseline Weight	Average Follow Up Weight	p-value
Weight (lbs)	**252.24**	**247.19**	**0.025**

^Data from all 2014-2015 participants, n = 37

Table 5. Fitness & Lifestyle Challenge Self-Assessment^^

Self-assessment questions	Average Baseline Score	Average Follow-up Score	p-value (Confidence Interval)
I currently have specific, measurable, attainable, realistic and time-based fitness/lifestyle goals	2.80	4.00	0.001 (0.569-1.831)
I feel confident in my ability to reach my goals	**3.24**	**3.72**	**0.011 (0.120-0.840)**
I feel confident in my ability to know what foods and how much of certain foods I should eat	**3.64**	**4.20**	**0.004 (0.201-0.919)**
I feel confident in my ability to efficiently shop for and prepare healthy meals	**3.76**	**4.24**	**0.008 (0.140-0.820)**
I regularly prepare meals that I plan for in advance	**2.44**	**3.00**	**0.004 (0.201-0.919)**
I am more likely to eat healthy meals if I am given advice as to what to eat and when	3.56	3.72	0.603 (-0.467-0.787)
I have the knowledge to safely start a walking/exercise program	**4.08**	**4.72**	**0.001 (0.306-0.974)**
I currently engage in some form of regular exercise at least 20 minutes 2 times/week	2.84	4.36	<0.001 0.986-2.054)
I know how to stretch/ warm up before exercising	3.48	4.20	0.009 (0.194-1.246)
I know what my target heart rate should be while exercising	2.40	3.44	<0.001 (0.542-1.538)
I know the proper way to use a pedometer	**2.84**	**4.72**	**<0.001 (1.257-2.503)**
Cost is a significant reason why I do not exercise more or eat healthier	2.20	1.92	0.283 (-0.806-0.246)
I am aware of all insurance-based wellness/fitness reimbursements	2.75	3.42	0.092 (-0.118-1.451)

^^Data from 2014-2015 cohorts, n = 25; this self-assessment is a non validated questionnaire designed by the study coordinators; Score Range 1 to 5, 1 = strongly disagree, 5 = strongly agree

Conclusions

Community-supported clinic-based group visits for adult patients with obesity can have a significant impact on multiple health-related outcomes including:

1) Quality of Life
  a) Improved emotional well-being
  b) Improved pain
2) Mental Health
  a) Decreased PHQ-9 score by 2.4 points
3) Weight Management
  a) Average weight loss of 5 lbs
4) Development of Healthy Lifestyle Behaviors
  a) Increased confidence in:
    - obtaining goals
    - nutrition acumen
    - shopping for/preparing healthy foods
  b) Increased planning for meals in advance
  c) Increased knowledge about starting an exercise program
  d) Increased knowledge about pedometer use

This research forms the basis of future work in:
1) The importance of developing community-clinic partnerships for facilitating lifestyle change
2) The benefit of group interventions on physical health, emotional well-being, and healthy lifestyle choices
3) Exploring the impact of family medicine on population health

Literature Cited

[1]Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of Childhood and Adult Obesity in the United States, 2011-2012. JAMA. 2014;311(8):806-814. doi:10.1001/jama.2014.732.
[2]Committee on Accelerating Progress in Obesity Prevention; Food and Nutrition Board; Institute of Medicine; Glickman D, Parker L, Sim LJ, et al., editors. Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation. Washington (DC): National Academies Press (US); 2012 May 8. 2, Assessing the Current Situation. Available from: http://www.ncbi.nlm.nih.gov/books/NBK201136/
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Acknowledgments

We thank our community sponsors for supporting our efforts to promote health and healing in our local patient population, Jo Temte for teaching the guided stretching/relaxation exercises, and Ryan Yates and Kara Hoerr for preparing nutritious meals for the participants at each meeting. This project was funded by a Department of Family Medicine and Community Health small grant.

Lisa Netkowicz, MD

Projects Completed During Residency:

Scholarly Project:

Evidence-Based Practice Topics in Maternity Care: Screening for Trichomonas in Pregnancy

Community Health Project:

Sean Duffy and I worked together on a Chronic Narcotic Guideline and Chronic Narcotic/Complex Patient Review Board for the Wingra Clinic. The goals of this project were to help providers have a unified approach to prescribing narcotics that is safe and evidence based. This idea came about as the efficacy of chronic narcotics has been called into question and the role of prescription narcotics as a significant public health problem has become more apparent. We also implemented the Chronic Narcotic/Complex Patient Review Board where providers have a space to discuss challenging patients and the Board will make suggestions to improve their care.

Thank you Andrew Schmitt for always telling me that I'm good enough.

– Lisa

After earning her B.A. in Psychology from Penn State University, Lisa spent two years working full-time as a case manager for the elderly. It was in this role that she was first inspired to study medicine, both for her interest in geriatric health as well as the enjoyment and satisfaction she gained from the relationships she formed with the people she served. She attended medical school at Tufts University in Boston and was drawn to Family Medicine for its focus on holistic care. As a student she participated in a Family Medicine Externship, where she was able to shadow a family physician at Greater Lawrence Community Health Center during integrative medicine practice. She helped facilitate group visits with at-risk youth and developmentally disabled adults, and also maintained a community garden. Lisa also enjoys teaching and mentoring. She served as a preceptor for the first-year interviewing course at Tufts and mentored a ten-year-old boy with spinal bifida through Children's Hospital of Boston. Lisa's hobbies include yoga, sailing, running, biking, swimming, hiking, live music, and cooking. She also loves hoop dance, a form of art and exercise using a hula hoop, and has become an accomplished hoop dance performer and teacher. She lives with her wonderful partner Andrew and their daughter, Genevieve.

2016 EBP Topics in Maternity Care
EMS ***
Title "Screening for Trichomonas in Pregnancy"
Word Count
Author 1 Lee Dresang
Author 2 Lisa Netkowicz
University of Wisconsin
Madison, WI

Screening for Trichomonas in Pregnancy

Clinical Case

A 23 year old G1P0 woman presents to your office for her first prenatal visit at 8+2 weeks. She is otherwise healthy and has no concerns at this time.

Evidence-Based Answer

Screening for Trichomonas in pregnancy has been shown to reduce the risk of preterm birth and preterm low birth weight (SOR: A; RCT). HIV vertical transmission can also be reduced by screening for Trichomonas in HIV infected pregnant women (SOR: B, observational cohort study). However, the current STD treatment guidelines from the CDC only recommend screening for Trichomonas in HIV infected pregnant women and do not recommend routine screening in asymptomatic women (LOE 5).

Evidence Summary

In 2015, a Cochrane Review found 1 RCT (N=4155) meeting inclusion criteria that examined the effect of lower genital tract infection screening and treatment on preterm labor and preterm low birth weight.[1] Asymptomatic women with singleton pregnancy at 37 weeks or fewer gestation in Austria were randomized to screen and treat for Candida, Bacterial Vaginosis and Trichomonas versus screening but no treatment. There was a statistically significant difference in the number of preterm births between the two groups (risk ratio (RR) 0.55, 95% confidence interval (CI) 0.41 to 0.75). There were also a significantly lower number of infants born preterm with low birth weight of less than or equal to 2500g (RR 0.48, 95% CI 0.34 to 0.66) and very low birth weight of less than or equal to 1500g (RR 0.34, 95% CI 0.15 to 0.75). The review determined that evidence from one trial showed that screening for lower genital tract infections in pregnant women reduced preterm birth and preterm low birth weight.

A retrospective cohort study also published in 2015 found that the incidence of preterm birth was significantly lower in the intervention group where a screen and treat program for lower genital tract infection was implemented.[2] In this study, women with high risk singleton pregnancy who presented for prenatal care between 10+0 weeks and 16+0 weeks gestation who agreed to screen and treat for Candida, Bacterial Vaginosis, and Trichomonas (N=8490) were compared to a control group of women with high risk singleton pregnancies who did not undergo the screen and treat program (N=8651). The intervention group had a preterm birth rate of 9.7% (95% CI 9.05-10.27) versus 22.3% (95% CI 21.38-23.16) in the control group (p-value = <0.001).

The above studies examine women with no other infectious comorbidities. In 2010, an observational cohort study looked at the rate of Human Immunodeficiency Virus (HIV) vertical transmission up to 15 months after delivery in HIV infected pregnant women enrolled at a primary maternal child health clinic in Harare, Zimbabwe.[3] This study found that lower genital tract infections (Candida, Bacterial Vaginosis, and Trichomonas) imparted a risk ratio of 2.04 (95% CI 1.37-3.04) for HIV vertical transmission. The Center for Disease Control (CDC) 2015 Sexually Transmitted Disease (STD) treatment guidelines recommend routine screening for Trichomonas in HIV infected women based on this observational cohort study from Zimbabwe. The CDC 2015 STD treatment guidelines state that screening for Trichomonas in otherwise healthy women does not have established benefit at this time.

A limitation of all of the studies involved was that they evaluate lower genital tract infections including Trichomonas but do not examine the effect of Trichomonas alone.

Clinical Case Conclusion

You complete a history and physical and discuss screening recommendations with your patient. You and the patient decide to screen for HIV and lower genital tract infections including Trichomonas to reduce the risk of HIV vertical transmission and preterm birth.

References

1. Sangkomkamhang US. Antenatal lower genital tract infection screening and treatment programs for preventing preterm delivery. *Cochrane Database Syst Rev*. 2015; (2):CD006178.
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3. Gumbo FZ, Duri K, Kandawasvika GQ, et al. Risk factors of HIV vertical transmission in a cohort of women under a PMTCT program at three peri-urban clinics in a resource-poor setting. Journal of Perinatology. 2010;30:717-723.
4. Center for Disease Control and Prevention. Trichomoniasis-2015 Sexual Transmitted Diseases Treatment Guidelines. http://www.cdc.gov/std/tg2015/trichomoniasis.htm

CME Question

What is the 2015 STD Treatment Guidelines recommendation for screening for Trichomonas in pregnancy?

A. Screen pregnant women with history of high risk sexual activity
B. Screen all pregnant women
C. Do not screen for trichomonas in pregnancy
D. Screen all HIV positive pregnant women

Jessica O'Brien, MD

Projects Completed During Residency:

Community Health Project:

Wingra Nutrition Sessions

Scholarly Project:

ABCs of Interprofessional Education in a Teaching PCMH FQHC. Martonffy A, Fondow M, Groeschel N, Vasquez M, O'Brien JL. Seminar presented at Society of Teachers of Family Medicine Annual Spring Conference, Minneapolis, MN. May 1, 2016. Educating members of the health care team in an interprofessional setting can lead to improved collaboration and care provision; it can also present time and communication challenges. We presented our ABC principles (Access, Buy-in, Co-ownership with Clear roles) that we have used to overcome these challenges in a patient-centered medical home, federally qualified health center in which we train physicians, social workers, behavioral health providers, and pharmacists. Through the "Six Hats of Thinking" framework, we helped participants tailor the techniques to their own practice setting.

Originally from Michigan, Jessica O'Brien earned a B.A. in Biology from Williams College in Massachusetts before heading west to work in a neuroscience laboratory at UCSF. While working as a researcher, she also sought out opportunities to be involved in her community. She taught interactive science lessons to English Language Learners in San Francisco public schools, and she counseled patients about HIV transmission in a free healthcare clinic. These outreach experiences ultimately inspired her to return to the East Coast to pursue a dual degree in medicine and education from Harvard University. Jessica's commitment to education and public service continued during medical school, where she was the student director and education director of the Crimson Care Collaborative, Harvard's student-faculty clinic that provides care to underserved patients. In this role she designed curricula for volunteers, including an elective course called Social Justice Through Primary Care, and led continuous quality improvement cycles. She also continued her outreach to schools by assisting a family physician with the implementation and evaluation of a health literacy program at Somerville Public High School. In her free time, Jessica enjoys city biking, running, cooking seasonal produce, live music, public radio, and reading novels.

Many thanks to friends and fellow residents for making Madison a second home to me. Special thanks to my partner, Chris, for all the support, laughs, and long runs during residency.

– Jessie

Title: Wingra Nutrition Sessions

Background: Monthly group nutrition sessions were started at Wingra Family Medical Clinic in February 2014 in collaboration with Community Health Volunteers of Madison (CHVM), a University of Wisconsin pre-health student-led group of volunteers interested in promoting and impacting community health in Madison. CHVM students have an ongoing volunteer presence at Wingra Clinic and a subset of these students received additional nutrition, motivational interviewing, facilitated discussion and cultural competency training. Two resident physicians and trained CHVM volunteers organized and hosted free hour-long interactive group nutrition sessions for Wingra patients after clinic hours. Healthy snacks were also provided. In a survey of patients from an unrelated project in the summer of 2015, Wingra patients identified classes on nutrition as the most requested health activity they would like available to them.

Objectives: The Wingra nutrition sessions were piloted by Dr. Mastrocola and Dr. Ronick from February 2014 to May 2014. I and Dr. Schimek were co-physician facilitators of the program from May 2014 to July 2015. I continued in my role as physician liaison through June 2016 as the program evolved to better meet the needs of volunteers and patients.

Goals of our nutrition sessions included:

1. To educate the Wingra patient community on nutritional topics, including topics related to chronic disease management such as diabetes, hypertension and obesity
2. To facilitate group discussion and individualized healthy goal-setting about nutrition with patients.
3. To build connections between patients and Dane County community resources such as Foodshare, MarketBasket and the Farmer's Market.
4. To provide a valuable educational and patient/community engagement opportunity for CHVM students.
5. To continually evaluate the program and improve impact and value to participants.

Methods: Group nutrition sessions were developed and hosted in series of four monthly sessions, occurring twice per year. Topics included diabetes, hypertension, healthy protein, healthy fats, eating more vegetables, weight loss, and watching the documentary, "Forks Over Knives". Participants received pre and post surveys on knowledge, attitudes and feedback. Patients that had expressed interest in nutrition classes but could not attend sessions were also surveyed for feedback. CHVM volunteers and physicians met regularly for planning and debriefing. Multiple quality improvement cycles were performed using the Plan-Do-Study-Act framework.

Results & Discussion:

During the pilot phase in early 2014, attendance was poor with zero to four patients at each session. Improving attendance was a priority in planning future sessions. First, patients were recruited by all CHVM volunteers, who regularly see Wingra patients in the rooming process as part of the Right Question Project, instead of only by CHVM volunteers in the nutrition sub-group. Patients who expressed interest in nutrition sessions were added to a telephone calling pool and were reminded of the dates of sessions. Patients were also encouraged to bring a friend or family member to sessions. Next, physicians and staff were educated about the nutrition sessions by emails, resident education sessions, and staff meetings. An epic smart-phrase was developed to assist in referrals. Flyers were created and placed in the staff workroom and the patient check-out area. Third, sessions were held at a specific predictable date and time each month in the same location. Lastly, the topic for the next session was picked by participants at the previous session.

Attendance was improved for the second series of group nutrition sessions over fall/winter of 2014/2015 with attendance ranging from 6 to 16 participants. Unfortunately, attendance again decreased over the spring/summer 2015 sessions. Recruiting efforts were renewed. Additionally, a website was designed to advertise the nutrition sessions and host patient handouts. Analysis of IP addresses and hit counts showed that very few patients accessed the website with the majority of views coming from UW work computers. Many patients did not have or did not give email addresses as contact information. Overall, CHVM kept a rolling log of approximately 40 patients that expressed interest in nutrition sessions but did not attend. CHVM volunteers had difficulty calling patients to remind them of nutrition sessions due to the phone number not working or not accepting messages. Of patients that were informally surveyed many barriers to attendance were identified including lack of transportation, needing child care, desiring a meal or food from recipes, or requesting different times for the sessions.

There were many challenges to addressing the barriers to attendance. CHVM volunteers did not get approval to provide participants with bus tickets. Medical transportation could not be used after hours since patients did not have appointments with physicians. We could not get approval to offer sessions during clinic hours due to space restrictions. Children were welcome at sessions but no child care could be arranged. There were specific Access Community Health Center liability issues that precluded us from serving any food from patient or volunteer supplied recipes. Liability issues required all supplied food to be pre-packaged.

CHVM volunteers did work on setting healthy nutrition-related goals with patients. They followed up via telephone call and future sessions, although these follow-ups were limited by lack of working phone numbers and poor attendance. CHVM volunteers were interested in piloting a program to pair each volunteer with one patient for more intensive life-style goal setting. However, they did not get approval for this project due to liability concerns of the volunteers potentially meeting with patients unsupervised by physicians.

Community partners from FoodShare, MarketBasket and the Farmer's Market were invited to the third series of nutrition sessions in Spring/Summer 2015. Given the poor attendance at these sessions, the intention for community bridging with patients was not met.

Patients were given surveys on knowledge and attitudes about nutrition at the sessions. However, very few patients completed these surveys. Thus, no conclusions on learning impact could be drawn. Some patients expressed that taking a test made the sessions less enjoyable. Others were not literate in English. Most feedback was gathered verbally due to these limitations. Another large area of concern by patients was their lack of access to affordable healthy foods.

The CHVM volunteers found the series of nutrition sessions with high attendance very rewarding. However, the later sessions with poor attendance required a significant time and energy investment with smaller value.

Due to poor attendance and numerous barriers that could not be adequately overcome to improve the sessions, the Wingra group nutrition sessions ended in the Fall of 2015. Instead, the group of CHVM volunteers changed their efforts to start nutrition and health coaching in a community setting and address upstream determinants of nutrition such as access to food. I remained a physician liaison and mentor to their program.

Conclusions & Future Directions: Group nutrition sessions were challenging to sustain at Wingra Clinic. Despite high patient interest in nutrition classes from data obtained from a different project, there were many barriers that made patient attendance at group nutrition sessions difficult including lack of transportation, inability to provide more realistic food options due to liability, and inability to provide

sessions at patient-requested times. We also experienced challenges in evaluating educational impact on participants due to illiteracy. Patients also identified lack of access to affordable healthy food as a main barrier to healthy lifestyle choices.

Since we were not able to meet our goals or find adequate solutions to overcome these barriers, the group nutrition sessions ended in Fall 2015. Instead, the CHVM volunteers have switched efforts to two other projects. First, CHVM started leading regular twice weekly health and nutrition education sessions at the Boys & Girls Club on Taft St in Madison in January 2016. They have been successful at establishing a regular presence at a community site that serves many Wingra patient families through this project. In the future, Wingra resident physicians could be guests at the Boys & Girls Club to further build bridges from the clinic to the community. Second, CHVM volunteers have developed a proposal for a Market Basket pilot program to bring affordable fresh produce to Wingra patients in collaboration with Growing Power, UW Urban and Regional Planning, and Slow Food UW. Additional future opportunities include collaborating with the new Patient Navigator program at Wingra clinic to create a referral database for nutrition and food resources in the community.

Acknowledgements:
Katy Jiang, Annie Yao, Sydney Olson, Olivia Lampone and many other Community Health Volunteers of Madison
Jonas Lee as faculty mentor for the CHVM student volunteers

Joshua Schulist, MD

Projects Completed During Residency:

Community Health Project:

Community Health Needs Assessment

Scholarly Project:

Addressing depression and burnout among University of Wisconsin-Madison family medicine residents -- Given the pervasiveness of burnout and depression in the medical profession and especially in residency education, the UW Family Medicine Graduate Medical Education Committee (GMEC) requested more information about this issue from residents. Julia Lubsen and I created a survey reflecting key components of prior studies on residency burnout and depression. This was sent anonymously to all residents at both the Madison and Baraboo programs with the vast majority providing feedback. We are currently evaluating the data and will present our findingstotheGMEC. Our goal is to use this data to raise awareness about resident burnout and depression and to suggest changes that will address this crucially important issue.

To my wife, Anna, I am eternally indebted. You stuck by my side from the start; offering a hand to hold, a shoulder to cry on, a smile to brighten my day and a life I am lucky to have shared. All that I am and have become would not be possible without your support. I love you always and forever. To my "work wife", Ali, I am grateful for you always brutally honest feedback and for reminding me to shave when I started looking scruffy. Residency would not have been the same without you. You will be missed. To my family I want to thank you for your support throughout my medical training and working with my always obtrusive schedule. We welcome you all to New Zealand and promise we will be coming back home. To my "resident family" I am grateful to have met each and every one of you. We truly have the greatest residents, faculty and staff in the country. To my friends I would like to give a huge shout out for continuing to be my friends. I promise I still know most of your names. I hope we can catch up in the near future and make up for lost time.

– Josh

Joshua Schulist, MD grew up in the rural town of Custer, Wisconsin. He completed his Bachelor of Science degree in Biology from UW – Stevens Point followed by his medical degree from the University of Wisconsin School of Medicine and Public Health. He was drawn to Family Medicine for its scope of practice and continuity of care. During medical school he was a participant in the Wisconsin Academy for Rural Medicine (WARM), which provides students a longitudinal rural curriculum at sites throughout rural Wisconsin. In addition to clinical work, as a WARM student Josh had the opportunity to work on a project with community partners and local physicians in Marshfield, WI, to identify local prescription drug-related problems and effective ways to address them. After residency Josh will be traveling to New Zealand for one year where he will be a working as a rural physician. When he returns he will be practicing in a rural community outside of Madison. In his off hours Josh is most often found enjoying down time with his wife and two boys. He enjoys spending most summer months outdoors at any number of the endless festivals or events held in the Madison area. On those rainy and cold days he loves playing video games.

Title: Community Health Needs Assessment

Background: The Department of Family Medicine has recently undergone a name change to the Department of Family Medicine and Community Health. Given this change, there has been greater emphasis on community/public health and the way in which this is being taught to the residents has evolved. The current curriculum is quite strong at guiding residents on how to perform a health needs assessment in Dane county and at our local Family Medicine clinics but a gap existed in how this should be can or should be done elsewhere (i.e. rural Wisconsin).

Objectives: My goal was to help strengthen the residency community health curriculum to better prepare residents on how a needs assessment can be performed in almost any community. This is specifically meant to help provide tools for communities that are either resource poor or lacking an academic health system.

Methods: Current curriculum at the time was reviewed as to how health needs assessments were being taught and how these resources pertained to rural communities in Wisconsin. The two rural towns used for comparison were Monroe WI which is home to the Monroe Clinic, a teaching general hospital and Lancaster, WI which is home to Grant Regional general hospital. Many available resources at the time of the search pertained to Dane County specific health measures and resources available in this community. I performed a simple search on "how to perform a health needs assessment" that returned 56,400,000 hits. The majority of time was spent on evaluating each "hit" (only the first few pages) for ease of access and strength/reputation of publishing entity (i.e. CDC, University setting). The sites were then accessed to ensure they would either return usable data or provide resources to the participant as to where this information could be obtained in their community.

Results: These are as of yet to be determined. The information has not yet been incorporated into the resident curriculum.

Conclusions: Performing a CHNA and then acting upon those results seems like it should be a very straight forward process but as I found this can be quite confusing and time consuming. There appear to be a number of different websites available that offer guidance with conducting a CHNA and it can be overwhelming trying to figure out which of them is right for you. Many initial search results were either links to static PDF's or websites from large health corporations and government entities. Most of these were small type font and pages were full of paragraph on paragraph with hyperlink after hyperlink. I was able to narrow this list down to three main websites that appeared to be the most evidence based and easiest to navigate. My hope is that this will provide graduating residents with the tools necessary to perform a CHNA and begin to implement actionable change in any community.

Acknowledgments: Robin Lankton, MPH CHES

Walker Shapiro, MD

Projects Completed During Residency:

Scholarly Project:

Dermatology Teaching for Morning Report

Community Health Project:

Community Health Outreach:

1) Together with Dr. Rindfleisch (Wingra Clinic), we presented our experience with children's mental health from a clinical perspective at a briefing for state legislators and the public at the Wisconsin State Capitol. This was part of the "Evidence-based Health Policy Project" through the UW Population Health Institute.

2) Discussed pre-conception counseling and birth control on the radio program "Nuestra Salud" ("Our Health") on the Spanish-Language radio station, La Movida.

3) Planned a presentation on hypertension and diabetes at the request of a Madison group for women from Senegal and The Gambia.

Walker Shapiro, MD grew up Albany, California, and earned his bachelor's degree in Spanish Literature from Reed College in Oregon. He then moved to the Midwest to pursue his medical degree at the University of Wisconsin School of Medicine and Public Health. He is drawn to Family Medicine as the specialty that best engages his core values of compassion, care for the underserved, and attention to environmental and social factors that influence health. Before medical school he traveled to Nicaragua to provide Spanish-English interpretation for a medical mission trip, and he has been an active volunteer for the student-run MEDiC clinics that provide care for the underserved in Dane county. He also has a strong interest in education and has volunteered with school children in California and Madison, providing academic support for Spanish speaking students and presenting health-related workshops. During medical school, he served as Finance Committee Secretary for the Healthy Classrooms Foundation, an organization that provides grants for innovative projects in schools. He also co-founded the Jewish Association of Medical Professionals to help facilitate discussions for fellow students about religion and medical ethics. Outside of medicine, Walker enjoys music (guitar, mandolin, singing, songwriting), reading, backpacking, cycling, and traveling. Most of all, he enjoys spending time with his wife and three children.

Thanks to my amazing wife, Luella, for supporting me throughtout this process, and to my children, Althea, Iliana, and Nico, for being my teachers every day.

– Walker

DERMATOLOGY TEACHING FOR MORNING REPORT

Walker Shapiro, MD
Resident Physician
University of Wisconsin Department of Family Medicine and Community Health

Goal

Residents will have the opportunity to practice describing dermatologic findings using standard terminology. Additionally, residents will briefly review the clinical features of some of the most common and most serious dermatologic conditions in primary care. The focus will primarily be on description of physical findings. Features of dermatologic conditions (epidemiology, clinical presentation, management, prognosis) may also be discussed briefly.

Methods

- Several brief (approximately 5 minute) dermatology cases will be available in the form of PowerPoint slides (about 2-4 slides per case). Residents may choose a case to present at the the beginning of their Morning Report. Residents may also select their own case, not included in the collection, to present in the format described below.
- Cases will begin by viewing an image and, as a group, describing the findings using standard terminology including:
    - Distribution
    - Configuration
    - Primary lesion
    - Secondary changes
- A "Dermatologic Description" tool (2-sided, laminated card) will be available as a guide and reference during the presentations.
- After describing the findings, the diagnosis will be discussed briefly (may include key points about epidemiology, clinical presentation, management, prognosis).
- Prepared cases include:
    - Acne
    - Warts
    - Psoriasis
    - Atopic dermatitis
    - Pityriasis rosea
    - Drug reactions (including SJS-TEN)
    - Melanoma
    - Basal cell carcinoma
    - Squamous cell carcinoma
    - Fungal infections
    - Scabies
    - Impetigo

Special thanks to Ildy Martonffy and Justin Endo for assisting me with this project.

DERMATOLOGIC DESCRIPTION

1. **Primary lesion**
    a. Flat
        i. **Macule** (< 1 cm)
        ii. **Patch** (> 1 cm)
    b. Raised
        i. **Papule** (superficial, < 1 cm)
        ii. **Plaque** (superficial, > 1 cm)
        iii. **Nodule** (solid, deep, > 1 cm)
        iv. **Tumor** (solid, deep, > 2 cm)
    c. Fluid-filled
        i. **Vesicle** (superficial, < 0.5 or 1 cm)
        ii. **Bulla** (superficial, > 0.5 or 1 cm)
        iii. **Pustule** (pus-filled, < 1 cm)
        iv. **Abscess** (necrotic cavity, pus-filled)
    d. Depressed
        i. **Erosion** (partial epidermal)
        ii. **Ulcer** (to the level of the dermis)
        iii. **Atrophy** (thinning of epidermis or dermis)
    e. Vascular
        i. **Telangectasia** (vascular dilation)
        ii. **Petichiae** (< 0.5 cm) **/ purpura / ecchymosis** (non-blanching, cause by extravasation)
        iii. **Erythema** / **erythroderma** (Blanching, caused by increased blood flow)
    f. Necrotic
        i. **Gangrene** (due to loss of blood supply. Can be "wet" or "dry")
        ii. **Eschar** (pronounced "**es**-kahr". Black, scab or crust)

2. **Secondary changes**
    a. Crust
    b. Scale
    c. Erosion, ulceration, lichenification, excoriation, induration (see below)

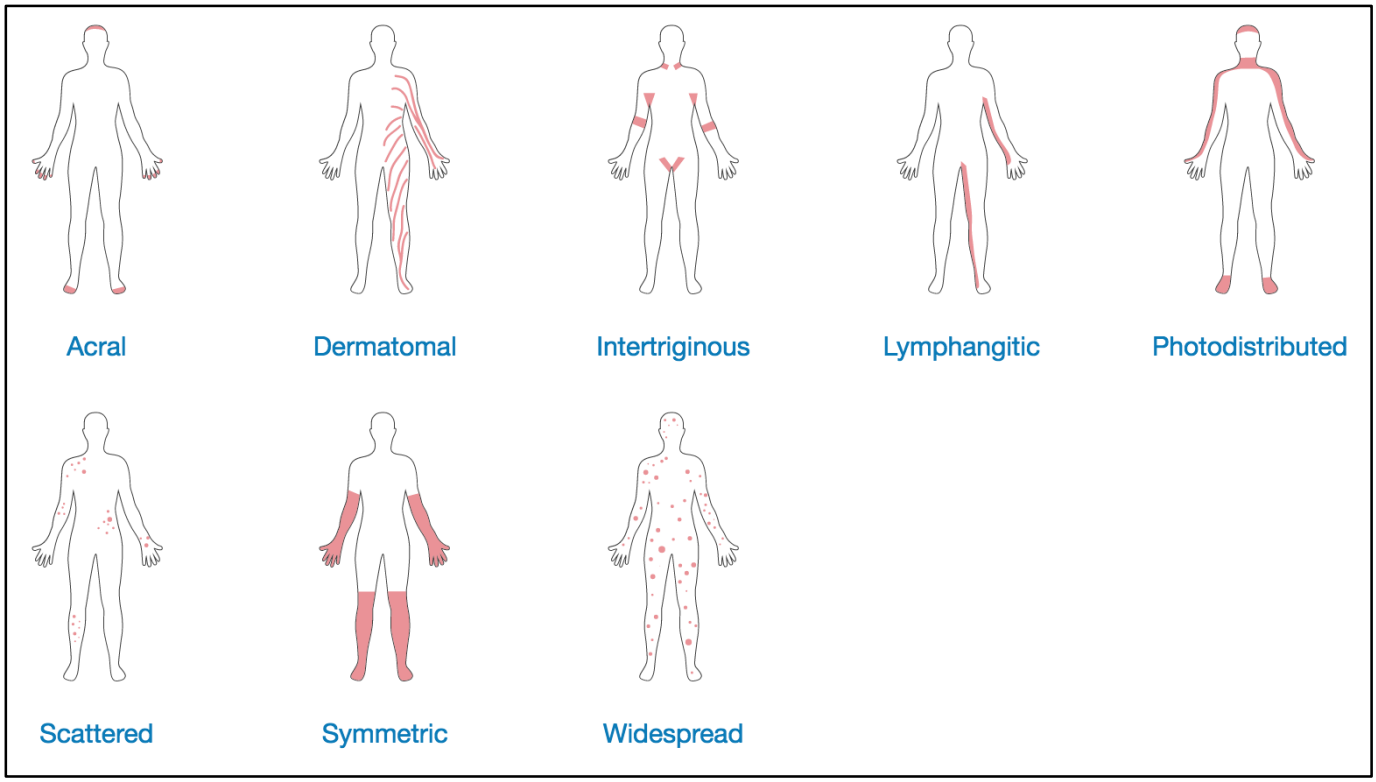
3. **Other**
    a. **Lichenification** (skin thickening, accentuation of normal skin markings)
    b. **Excoriation** (superficial abrasions due to scratching)
    c. **Induration** (dermal thickening)
    d. **Koebner phenomenon** (primary lesion occurring at the site of trauma)
    e. **"Papulosquamous"** (papules and plaques with scale)

4. **Other descriptors**
    a. Size
    b. Shape
    c. Color
    d. Borders (e.g. well-circumscribed)
    e. Configuration (can describe single lesion or group of lesions. e.g. annular, arcuate, grouped, linear, polycyclic, reticular, scattered, serpiginous, targetoid, whorled)
    f. Location / Distribution (e.g. widespread, symmetric, scattered, photodistributed, dermatomal, acral, intertriginous, lymphangitic)

Sources:

1. American Academy of Dermatology (Learners Guide for Students: https://www.aad.org/education/basic-derm-curriculum/teaching-and-learning-guides/learner-s-guide)
2. LearnDerm by visualdx (http://www.visualdx.com/learnderm/)
3. UCSF Dermatology Glossary: http://missinglink.ucsf.edu/lm/DermatologyGlossary/index.html

Distribution



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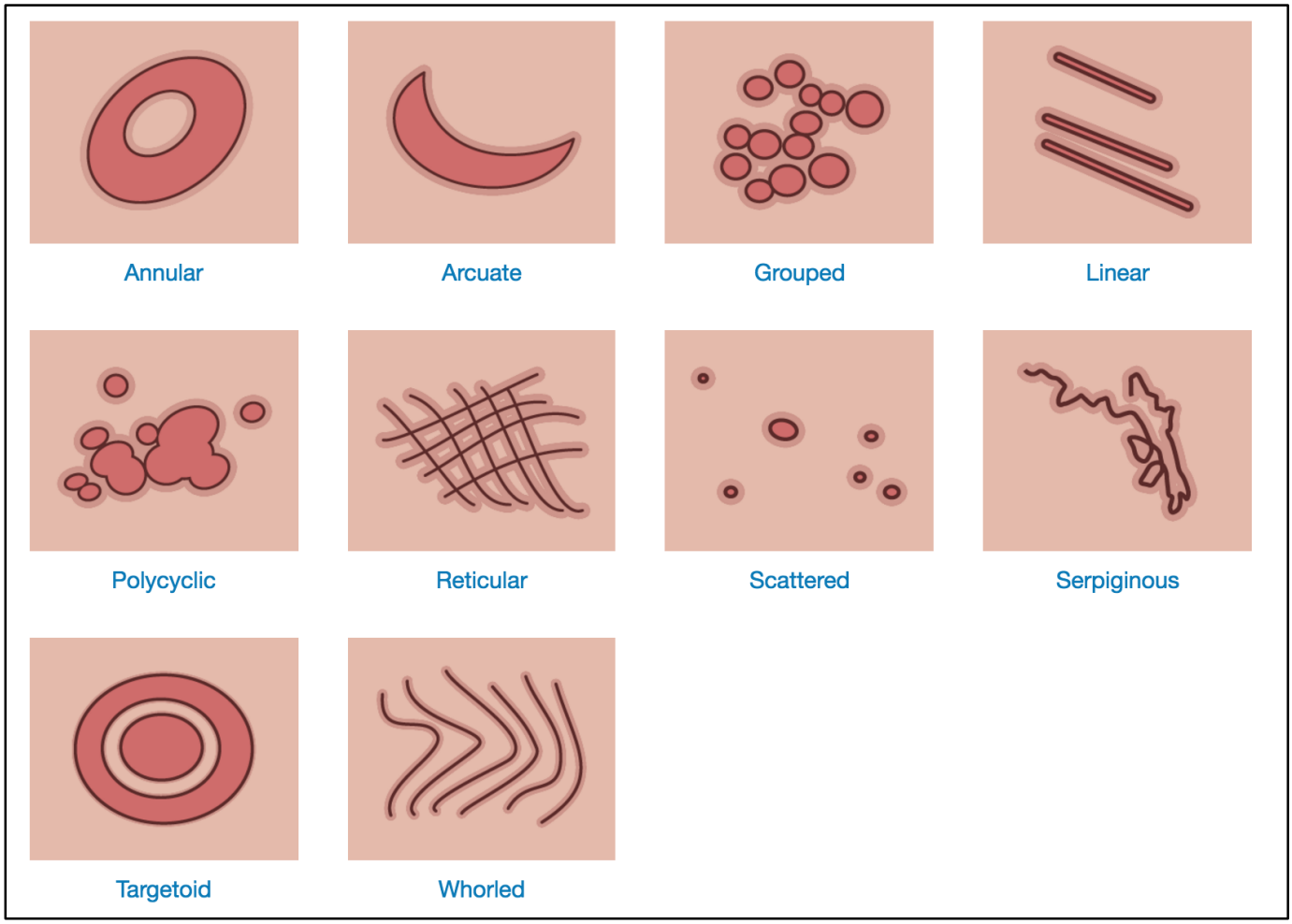


Source: LearnDerm by visualdx (http://www.visualdx.com/learnderm/)

Anna Veach, DO

Projects Completed During Residency:

Community Health Project:

Improving Access to Advance Care Planning at Northeast Clinic

Scholarly Project:

Integrative Approach to Treating Insomnia -- The UW Integrative Medicine Department has a nationally known and utilized website with handouts for patients and providers. I had the opportunity to personally work with Dr. Taryn Lawler, D.O., on a project to review and revise one of the firstpatienthandoutseverposted, "Improving and Maintaining a Healthy Sleep-Wake Cycle." Goals for the project were to update the formatting and style in an effort to standardize the handouts, evaluate and ensure the reading level of 6th grade, and update the information from the ever-changing world of medicine and developments in understanding sleep and treating insomnia.

After completing her B.A. in Women's Studies at the University of California in Santa Cruz, Anna worked as a Medical Assistant for the Coastal Health Alliance, a group of clinics that serves patients in rural communities in northern California. It was there she found the inspiration for osteopathic family medicine, and she went on to complete her medical degree at Touro-CA University-College of Osteopathic Medicine. She brings to family medicine a passion for teaching after completing a Pre-Doctoral Teaching Fellowship in medical school. During that fellowship, Anna taught first and second-year students in lecture and lab settings and was profoundly inspired. Anna plans to incorporate OMM into her future family practice and has been accepted to a Neuromuscular medicine/Osteopathic Manipulative medicine residency in Maine next year to gain training for inpatient osteopathic medicine. In addition to OMM, Anna's medical interests include women's health and integrative medicine. In her free time, Anna enjoys road and mountain biking, traveling, camping, sailing, backpacking, gardening, hiking, skiing, and snowboarding.

I want to express deep gratitude for the incredible support I received from our support staff and faculty and most especially my husband.

– Anna

Community Health Project

Anna Veach, DO and Julia Lubsen, MD

Title: Improving Access to Advance Care Planning at Northeast Clinic

Background: Advance care planning (ACP) is "a process across time of understanding, reflecting on and discussing future medical decisions, including end-of-life preferences."[1] During this process most people complete a written advance directive expressing their wishes, which includes appointing a healthcare power of attorney (HCPOA). ACP is critical for ensuring that people's wishes are honored at the end of life and eases the burden of decision-making placed on caregivers and loved ones.

In November 2012, only 6.4% of patients over 65 years old at Northeast Clinic had basic advance directives completed and uploaded into their charts, and among adults over 18 years old the completion rate was only 1.5%. In response to these low rates, former Northeast resident Ann Braus, MD initiated a quality improvement project that aimed to increase the completion rates for HCPOA documents and make these documents easily accessible in the medical record.

At that time UW Health began participating in a program called Honoring Choices Wisconsin, which promotes ACP discussions. During Honoring Choices appointments a trained facilitator helps patients and families discuss health care and end-of-life preferences and complete a comprehensive advance directive that designates a HCPOA and describes the patient's wishes. Dr. Braus initiated a partnership between Northeast Clinic and Honoring Choices. We continued work on this project and in 2015 Northeast Clinic became the first primary care clinic in the UW system to pilot Honoring Choices Wisconsin for adult patients.

Objectives: Our primary objective was to provide Honoring Choices ACP appointments at the Northeast Clinic on a small scale, and to identify successes and challenges with implementation of this service in a primary care clinic in preparation for offering the service to all Northeast patients.

A secondary objective was to increase awareness about ACP among the staff at Northeast Clinic in an effort to improve support for the service and increase its sustainability.

Roles: We both referred patients on our panels for ACP visits in the pilot phase of the project, worked closely with a team of people from the clinic to implement ACP visits at Northeast, and created a plan for making the visits accessible to all patients in the clinic.

Julia Lubsen created and delivered a presentation for all staff at Northeast at an education afternoon, kept meeting minutes, and facilitated planning for sustainability of the program at Northeast and UW Health as she moves into the UW Geriatrics Fellowship.

[1] Honoring Choices Wisconsin

Anna Veach attend an Honoring Choices group ACP visit for staff and developed methods of sharing information through the EPIC EMR about patients interested in ACP or going through the ACP process, and facilitated communication between the front desk and providers about ACP visits.

Methods: Starting in December 2014 we began meeting with Mia Morrisette, CSW, MBA who is a trained ACP facilitator and the program coordinator for Honoring Choices at UW Health, to discuss implementing Honoring Choices at Northeast Clinic. Several Northeast staff attended training to become ACP facilitators. During regular meetings with the facilitators and other clinic staff we created a scheduling template for ACP appointments, identified our own patients who were interested in ACP, created a system for tracking these patients and the outcomes of ACP visits, and created a clinic workflow to allow all clinic providers to offer ACP visits to their patients.

We gathered patient feedback during a Northeast Patient and Family Advisory Committee meeting regarding the program. We provided information about ACP to patients in the waiting room on National Healthcare Decisions Day and set up a permanent waiting room display with information. We also educated faculty, residents and clinic staff about the importance of ACP through presentations at clinic education afternoons and through a facilitated group ACP visit for nursing staff. A similar group visit for residents and faculty is planned in May 2016.

Results: As of May 1, 2016, 115 Northeast patients have been referred for an ACP visit. Of these patients 40 (35%) have completed the process and have an advance directive scanned into their chart. There are 28 patients who are interested or going through the process, 32 patients were sent letters if they were difficult to reach or had one visit and have not yet followed-up, and 15 patients were ultimately not interested in an ACP appointment.

Conclusions: We have successfully implemented Honoring Choices at Northeast Clinic and have expanded the program so that any provider can refer their patient for an ACP visit. We also educated clinic staff about the importance of advance care planning. The program has been well-received by patients and clinic staff.

One of the most important lessons we learned was how challenging it is to facilitate communication about a clinic-wide initiative between all parts of the clinic. We are still refining the process of scheduling ACP visits to make this clear for all staff and to improve communication. Another challenge was advocating for clinic staff to be able to devote time to this program while still performing their other clinical duties. Educating staff about the importance of this issue helped us gain support.

We also learned a great deal about the huge benefits of ACP to patients and to our healthcare system, and feel passionate about the importance of providing this service to patients. Our greatest reward was hearing how happy patients were with the service and and hearing a growing excitement about this issue among our colleagues.

Acknowledgments: We also reflect on the profound group effort that this project required and feel honored that we had the opportunity to learn from the incredibly devoted people and patients at the Northeast clinic. We were especially inspired by the tireless devotion of Mia Morrisette and Jean Skinner. We would also like to gratefully acknowledge Christina Lightbourne, Olga Arrufat-Tobon and the entire Northeast staff and Northeast patients for their participation in this project.

Advance Care Planning at Northeast

Jean Skinner, Mia Morrisette, Julia Lubsen, Anna Veach
January 26, 2016

What is Advance Care Planning?

Advance care planning (ACP) is a process across time of understanding, reflecting on and discussing future medical decisions, including end-of-life preferences.

What is Advance Care Planning?

- Helps an individual understand, reflect upon and discuss goals, values and beliefs regarding future healthcare decisions.
- Has the power to produce a written plan **(advance directive)** that accurately represents the individual's preferences
- Prepares others, especially an appointed health care agent **(power of attorney for health care)**, to make healthcare decisions consistent with these preferences
- Communicates the person's wishes with family, friends, clergy, other advisors, physician and other health care professionals.
- Makes the advance directive available in the medical record.

Honoring Choices Wisconsin

- Advance care planning conversation between patient and their designated health care agents, led by a trained facilitator
- Based on Respecting Choices – ACP model in LaCrosse, Wisconsin

Honoring Choices WISCONSIN
AN INITIATIVE OF THE WISCONSIN MEDICAL SOCIETY

Respecting Choices®
GUNDERSEN HEALTH SYSTEM

ACP at Northeast

- December 2014 – NE ACP team started meeting
- First UW primary care clinic to implement ACP
- Trained facilitators: Mia Morrisette, Jean Skinner, (Olga Arrufat-Tobon, Christina Lightbourn)
- Created schedule in EPIC for facilitators
- March 2015 – started ACP visits

ACP at Northeast - Pilot

- Initial goal: Offer ACP to 50 patients
- Anna, Julia, Russ offer ACP visits to patients over 60
- Warm handoff with facilitator if possible
- Add patients to ACP patient list in EPIC
- Follow-up phone calls by facilitators to schedule appointments
- ACP visit(s), scan advance directive to chart

ACP at Northeast

- March 2015 – PFAC Meeting
- April 2015 – Education Afternoon Intro to ACP
- April 2015 – National Healthcare Decisions Day
- October 2015 – Group ACP visit for nursing staff at Education Afternoon; then follow-up visit
- Tomorrow – ACP group visit at Dryden Terrace

ACP at Northeast

Number of patients	%	
22	29%	Completed Advance Directive
11	14%	Other (had documents brought in for scanning when prompted, or not interested)
44	57%	In process (may have been called, had 1st visit but not 2nd)
77		Patients Referred for ACP

Successes

- Patients in the waiting room acting as witnesses
- Visits conducted in multiple languages; visit with a patient who has difficulty speaking after a stroke
- Clarifying patients' goals
- Forms filled out correctly

Challenges

- Scheduling
- Time needed to call patients
- Patient follow through

New ACP Data

18+, UW Health PCP, WI Address

Clinic	% with Advance Directive
Northeast	**12.7**
UW Health	12.3
Arboretum	11.7
Verona	11.5
Belleville	9.6
Augusta	7.0

UW Health

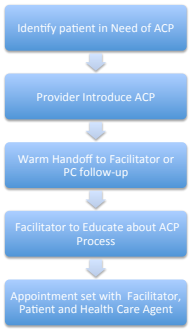
177,842

Patients over 18 in need of an ACP

53,418

Patients 55 and older in need of ACP

Process at Northeast



UW Health

Talking About ACP

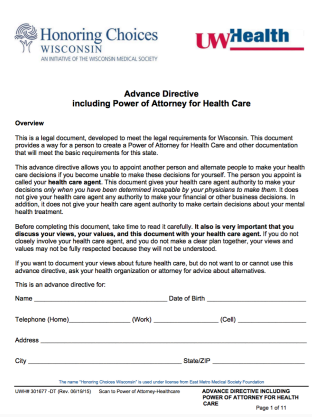
- PFAC felt that clinicians should talk about this program with patients rather than cold calls from facilitators
- Warm handoff with facilitator
- Handouts available above Jean's old desk
- Do not give patient document before the visit
- Visits are FREE

Talking About ACP

- " An advance directive helps make sure we know your wishes."
- "I have completed my advance directive, and I think every adult should."
- "A facilitator can meet with you and your Health Care Agent to make sure we understand your wishes very well."

ACP Visit

- What gets covered in a visit
- Honoring Choices document for advance directive – compare to WI state document



Honoring Choices WISCONSIN
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UW Health

Advance Directive
including Power of Attorney for Health Care

Overview

This is a legal document, developed to meet the legal requirements for Wisconsin. This document provides a way for a person to create a Power of Attorney for Health Care and other documentation that will meet the basic requirements for this state.

This advance directive allows you to appoint another person and alternate people to make your health care decisions if you become unable to make these decisions for yourself. The person you appoint is called your **health care agent**. This document gives your health care agent authority to make your decisions only when you have been determined incapable by your physicians to make them. It does not give your health care agent any authority to make your financial or other business decisions. In addition, it does not give your health care agent authority to make certain decisions about your mental health treatment.

Before completing this document, take time to read it carefully. **It also is very important that you discuss your views, your values, and this document with your health care agent.** If you do not closely involve your health care agent, and you do not make a clear plan together, your views and values may not be fully respected because they will not be understood.

If you want to document your views about future health care, but do not want to or cannot use this advance directive, ask your health organization or attorney for advice about alternatives.

This is an advance directive for:

Name _____ Date of Birth _____

Telephone (Home)_____ (Work) _____ (Cell) _____

Address _____

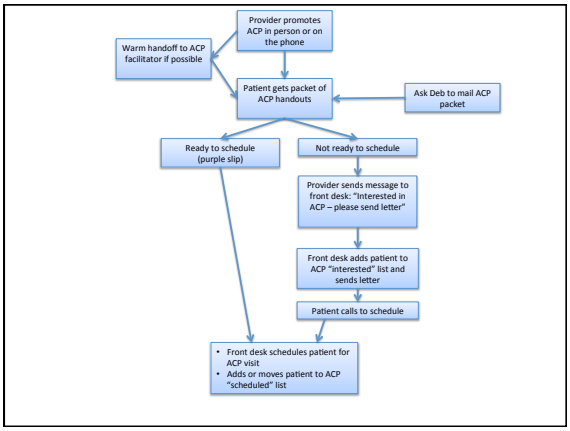
City _____ State/ZIP _____

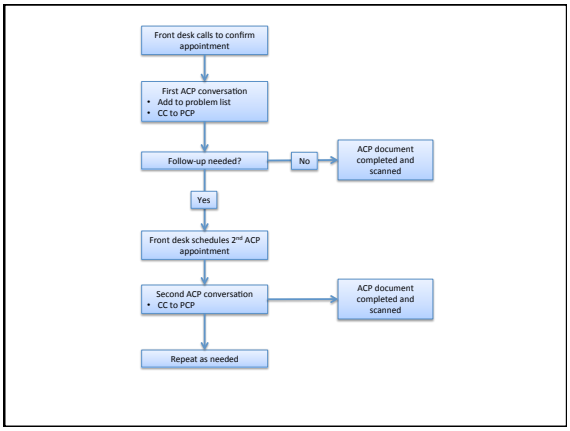
The name "Honoring Choices Wisconsin" is used under license from East Metro Medical Society Foundation

UW® 301677 -DT (Rev. 06/19/15) Scan to Power of Attorney-Healthcare ADVANCE DIRECTIVE INCLUDING POWER OF ATTORNEY FOR HEALTH CARE
Page 1 of 11

Some EPIC Tips

- Problem List: "Advance Care Planning"
- FYI: "Advance Directive"
- Consent/Legal Tab: copy of advance directive
- Encounter: Advance Care Planning
  - Filter by encounter type
- Telephone Encounter: Advance Care Planning as "Reason for Call"
- Demographics: NOT helpful – ignore this





Expanding Northeast ACP

- Open up to all providers
- More facilitators
  - Chaplin at UW coming in the evenings
- Group visits
- Patient survey or focus groups
- More ACP visits for staff

Future Directions

- Right now UW is implementing First Steps (healthy individuals or adults with chronic illness)
- ACP Module in EPIC – free with upgrade Nov 2016?
- Some states have registries of advance directives, Wisconsin does not yet
- Service billable to Medicare

Medicare to Pay for ACP

- Medicare authorized to pay for advance care planning starting January 1, 2016
- **99497** Advance care planning including the explanation and discussion of advance directives such as standard forms (with completion of such forms, when performed), by the physician or other qualified health care professional; first 30 minutes, face-to-face with the patient, family member(s), and/or surrogate
  - 2016 work RVU: 1.50 NGS Medicare (par, NF): $83.14
- **99498**…each additional 30 minutes
  - 2016 work RVU: 1.40 NGS Medicare (par, NF): $72.37