Message from the DIO

By Sugat Patel, MD, DIO

What are the currencies we value in our daily life? Tangible items like time and money are often at the forefront of any conversation. Money speaks for itself. Physician salaries are high compared to the general population. Physicians often do not have to worry about paying rent, having health insurance or putting food on the table. On the other hand, physicians often leave medical school with crippling debt. Seventy eight percent of our residents and fellows currently have over $200,000 in debt, with 54 percent having greater than $300,000. Not surprisingly, potential earnings are increasingly steering some students to higher paying medical specialties (1).

Time is another currency. Time for clinical and administrative work, professional development, family and self are discussed in contract negotiations and family discussions at the dinner table. More time away from the profession is sometimes purported as part of the recipe to combat burnout.

A currency not often discussed, however, is that brought about by service: pride. Pride in self and fulfillment achieved in serving the needs of our patients is unparalleled. A meaningful, humanistic interaction with a patient far outweighs the sacrificed time for that interaction and certainly monies gained from the encounter. Serving the profession through educating the next generation of clinicians provides additional satisfaction beyond the direct patient experience. Time away from the profession is not necessarily a cure for burnout. Rather, more time in the profession with meaningful, humanistic interactions with patients and mentees, I believe, is part of the solution.

In this issue of the GME newsletter we recognize those residents, fellows and faculty who have served in the U.S. military. Serving in the military was a calling for many of us. Much like medicine, the pride achieved in military service surpasses the sacrifice of our time and monies. The U.S. Navy not only trained me in my profession but also instilled the values of honor, courage and commitment. On this upcoming Veterans Day, I salute those who gave themselves in service to our country.

(1) GSRMC 2016 Resident and Fellow Wellness Survey.
A special thank you to our GME Faculty, Residents and Alumni

In honor of the upcoming Veteran's Day holiday on November 12th, GME would like to thank those who have served or are currently serving in the military. Thank you to our community members, SHS employees and a special thanks to those listed below who have a close relationship with GME. For those who may have been missed in our recognition below, we sincerely apologize and thank you for your service.

**Resident Alumni**
- Captain Adam C. Biesman, DO, US Air Force—Featured on page 4
- Captain Brook Davis, DO, US Air Force
- Major Lynn Gower, DO, US Army Reserves
- Major Kenna M. Wood, DO, Army National Guard—Featured on page 6
- Brian Hodges, DO (US Navy)
- Nicholas Molby, DO (US Air Force)
- Paul Lentz, DO (Captain, US Air Force)
- Paul Miller, DO (US Air Force)
- Timothy Zielicke, DO (US Air Force)

**Current Residents**
- Lieutenant Eric Vinceslio, DO, US Navy—Featured in Summer Issue
- Cathleen Bruner, DO (US Air Force)
- Benjamin Yousey, DO (US Navy) - Featured on page 5
- Adam Knutson, DO (US Army)
- Zachary Zanfes, DO (Lieutenant Commander, US Navy)

**Faculty Members**
- Sugat Patel, MD (Lieutenant Commander, US Navy)
- Colonel John Edwards, MD, US Army (retired)
- Barry Smith, MD (Major, US Air Force)
- Sarah Vander Pol, MD (Lieutenant Commander, US Navy)
- Erin Massey, MD (Lieutenant Commander, US Navy)
- William Muth, MD (Major, US Air Force)
- Eric Sharp, DO (US Air Force)
- Lieutenant Colonel Kit McCalla, MD, US Air Force Reserve
- Travis Obermire, DPT, SCS, OCS (Sargent, US Army) - Featured on page 3
- Captain Christopher Smith, US Army Reserve
- David Chin, Pharm.D (US Navy)

If you have questions about opportunities for Veterans within SHS or want to learn more about resources available for Veterans, please contact Kyle Hatch, Veterans Navigator at (541) 768-7800 or khatch@samhealth.org
Sports Physical Therapy Residency begins at The SAM

By Megan Kinane, MHA

In June, Samaritan Athletic Medicine (The SAM) opened its doors to Samaritan’s first PT Residency Program. Directed by Travis Obermire, DPT, SCS, OCS, the program was established to improve collaboration among all members of the sports medicine team and improve the relationship with Oregon State University (OSU). “I want the SAM to be the premier sports medicine facility in the Pacific Northwest”, shares Obermire, and having a residency program does just that.

Having learners in the facility requires staff members to be involved in the life-long learning process. “Having a residency elevates the level of the staff because it gets them involved in teaching, mentoring, didactic course work and pushes the entire team to strive to provide world class care,” states Obermire.

Each week the staff are involved in journal clubs where published research articles are read, reviewed and discussed. They also attend weekly residency conferences that focus on topics related to sports medicine. “This ensures that all rehab clinicians are up to date with the latest techniques and research in sports rehabilitation, which really benefits our community and our athletes,” states Obermire.

Having a Division 1 university that is part of the prestigious Pac-12 conference in its backyard provides an exceptional opportunity for the residents. Residents work closely with OSU and participate in “on the field” sports medicine coverage with OSU athletes. During their 12-month residency, residents rotate through the different athletic teams and provide rehab in their training rooms.

Joining a PT residency program after a student graduates from PT school and becomes licensed is optional and not a requirement set forth by the American Physical Therapy Association (APTA). Having this extended training heightens the quality of the physical therapist it will produce. Joining a PT residency program provides specialized education in rehabilitation focusing on neuro, sports, orthopedics or pediatrics patients. By 2020, the APTA’s vision is to have half of all PT graduates complete a residency.

The residency program takes the strongest candidates from anywhere in the country and will continue to grow as their foundation continues to strengthen. The future looks bright for this residency program and the community enrichment it provides. Read future issues of GME Quarterly to stay up-to-date on what is taking place at The SAM.

Faculty Spotlight
Travis Obermire, DPT, SCS, OCS

“My favorite thing about starting the residency is watching how it transforms relationships and practitioner communication. It is improving care in our community by building a more sound sports rehabilitation team.”

- Travis Obermire, CPT, SCS, OCS

What is your current role with Samaritan and GME?
I am the rehab supervisor at The SAM, residency director, weekly journal club coordinator and Sports Physical Therapist. I specialize in bike fitting and running biomechanical analysis.

Time served with the military:
I served in the Army National Guard as an artillery unity and served in combat as a team lead military police officer guarding the Iraqi President.

Favorite location you were stationed at?
I was stationed in Baghdad, Iraq for over a year and my best memories are from the friendships I developed with my best friends.

Best life lessons learned from your time in the military?
I learned about sacrifice, dedication and learning how small details have a large impact on the overarching goal.

How have these lessons contributed to your current career?
I know that it takes a team to accomplish any sizeable task. I also learned that any team is only as strong as its weakest link.

Favorite Hobby?
Training and competing in endurance events and spending time in nature with my family.

Words of wisdom for students/residents/fellows?
Life is an endurance event: If you are comfortable where you are—you will not be comfortable with where you finish.

Family life?
I have two amazing girls that keep me smiling. I am married to the smartest person I have ever known.
Alumni Spotlight

Captain Adam C. Biesman, DO

Residency Program: Psychiatry
Completed Residency: 2017
Military Branch: United States Air Force
Rank: Captain
Dates Served: Currently serving
Current Practice: Dyess Air Force Base, Abilene, TX

Where has life taken you since residency?
Since I was committed to the military prior to graduating residency, as soon as I graduated last year, I attended Commissioned Officer Training in Alabama and then moved on to my first active duty station at Dyess AFB in Abilene, TX.

What is your greatest takeaway from residency?
Stay flexible.

Best words of advice/wisdom from residency faculty members?
Mental Health patients can be quite challenging on a myriad of levels. They will often push boundaries and it can be quite difficult and uncomfortable to reinforce these boundaries. When I am dealing with a particularly difficult patient, I will have “flashbacks” to a particular look and finger point that Dr. Tim Blumer would give to us while supervising difficult patients and challenge us to maintain boundaries despite how uncomfortable or difficult it may be.

Advice for current medical students or residents?
Persistence. Persistence, Persistence. Do not forget that life goes on outside of medical school and outside of residency. Don’t let your occupation be the only thing that defines you as a person. Work with as many different attendings as possible. Especially in psychiatry, you will quickly find yourself alone, with few psychiatrists to consult with, so take advantage of being in a residency program with multiple other residents and attendings to learn from.

Biggest surprise when hitting the “real world”?
It can be lonely as a psychiatrist. I am the only psychiatrist at Dyess AFB and one of the three in the Abilene area (population of over 100,000). I appreciated having numerous competent colleagues to discuss difficult patients with while in residency.

What do you miss most about the Corvallis area?
The fresh produce, beautiful scenery and Judy Hallett, my Rockstar of a residency coordinator.

Where do you see yourself in 10 years?
Unknown, I’m enjoying my time currently and remain open to whatever opportunities the future holds.

If you were to start all over again would you choose your same career/specialty?
Absolutely, I love working in psychiatry, its challenging and never boring.

Favorite location(s) you’ve been stationed at, or if only one, best memory about that location?
Sitting in the cockpit of a B-1 Bomber, getting to use the B-1 flight simulator and helping explode ordinance at the EOD range are some of the unique and fun opportunities I’ve had in the last year.

Favorite Hobby?
Spending time with my family and watching soccer.
Resident Spotlight
Benjamin C. Yousey, DO

Residency Program: Internal Medicine, PGY 1
Hometown: Beaver Falls, NY
Medical School: Western University of Health Sciences, Lebanon OR
Previous Military Branch: US Navy
Rank when discharged: ND1 (DSW/SW/AW)
Dates Served: Nov 2005—May 2013

What did you do prior to medical school?
Prior to medical school I was a US Navy Diver

Best life lessons learned from your time serving?
If you think you can’t...learn in anyway. You can

Prior to residency, what was the most unusual or interesting job you’ve had?
While I was in the military I had quite a few different jobs. My first command was being trained as a machinist, while serving on the USS Enterprise CVN-65. On board I was part of the repair division and had hands down the dirtiest collateral duty you could imagine. I was tasked with Collection, Holding and Transfer of Solid Waste for 6000 people. Which is a fancy way of saying I was responsible for making sure the ship didn’t fill up with sewage! I moved on to be a Search and Rescue Swimmer, and would ultimately train to be a diver, attached to a ship’s husbandry command

Favorite interests and hobbies?
Family Adventures, Carpentry and Boating

Do you have any advice for medical students?
Find a group, activity or circle of friends outside of medicine. They will help ground you and remind you that there is an entire world outside of medicine. I feel the greatest shock of residency so far has been the actual weight of responsibility that comes with medical decision making. You work for years to be able to make the call, but nothing prepares you for that first day when someone turns to you and says, “what would you like to do Doctor?”

Where do you see yourself in 10 years?
My wish for ten years from now is to travel and adventure with my family, be well established in a medical practice, and hope to be able to engage in local politics and medical policy

Family Life?
My family is my wife Janet, sons Fletcher and Archer, and Nova the dog
Resident and Fellow Procedure Verification Lists
Now available on the GME Department Page!

Resident and Fellow procedure verification lists are now available on the SHS Insider by accessing the Department page: Graduate Medical Education; Shared Documents: Resident and Fellow Procedure List.

Having these lists available allows all staff to be able to look up the level of supervision required for each resident and fellow. This list is not comprehensive and will be edited semiannually. Below is an example of what these lists look like.

Blank box = the resident has not been signed-off to do this procedure with indirect supervision and must have direct supervision, meaning the attending physician or senior resident who is signed off must be present.

"X" = resident can perform this procedure with indirect supervision, meaning the attending physician must be available on site or by phone, but does not need to be in the room.

If you have any questions, concerns or recommendations for the procedure lists, please contact me at mkinane@samhealth.org

Updates from the Research Development Office:
Mendeley—A Reference Management Tool
By Olivia Pipitone, MPH & Paulina Kaiser, PhD, MPH

Paulina Kaiser (epidemiologist) and Olivia Pipitone (biostatistician) from the Research Development Office (RDO) are always available to help you plan, conduct, summarize, and share your research and/or quality improvement projects. Speaking of sharing your projects – if you’ve ever been bogged down by a lengthy and disorganized reference list when you were trying to summarize your research, we have a solution for you, and it’s Mendeley!

Mendeley is a free tool that can track references, format your in-text citations, and can create a bibliography for you that updates automatically as you write your paper! If you’ve ever heard of Endnote, this is a similar program!

You can find Mendeley on all resident iPads or at www.Mendeley.com. To use Mendeley, create an account with your Samaritan email address (please uncheck the "stay signed in" box when you register). You should also download the Microsoft Word plug-in for Mendeley. Using Mendeley is pretty straightforward; what works for us is to find an article in Google Scholar, then export the citation in RefMan format (.ris) and import the .ris file into your Mendeley library. As you write your paper, you can access all of your literature review resources within Mendeley, but the best part is that you can use the Mendeley plug-in tool within Microsoft Word to instantly insert citations, reformat the style of your citations, and add a bibliography at just the click of the button! There are lots of other ways to work with Mendeley, feel free to peruse Mendeley’s help guides or ask Google.

This is a new program for us, so we welcome all feedback and questions! If you would like more help accessing and using Mendeley, please contact the RDO at shsresearch@samhealth.org – we’re here to help!
Alumni Spotlight
Kenna M. Wood, DO

Residency Program: Internal Medicine
Completed Residency: 2013
Military Branch: Army National Guard
Rank: Major
Dates Served: June 1988 to present
Current Practice: Eugene, OR

Life after residency:
Dr. Wood has stayed very busy after leaving residency. She continues to serve in the Army National Guard of Oregon and works as primary care provider in Eugene, OR with PeaceHealth Medical Group. Dr. Wood has a passion for treating and managing obesity and plans to sit for the American Board of Obesity Medicine examination in February 2019. During her personal time, she enjoys running and recently completed her first half-marathon by participating in the Eugene Marathon. She plans to enter another marathon this December in Portland.

Family Life:
Her daughter is now a senior at UC Davis and graduates next summer.

Best words of advice/wisdom from residency faculty members?
Dr. Stan Nudelman: “Make your practice a practice you can live with” (i.e. set limits that you can live with)
Dr. Barry Smith: always contact the family of deceased patients to give condolences (I do)

Advice for current medical students or residents?
First order of business after residency is to get your quality of life back. Don't let your next job take it away from you; it is easy to let it just take over your life. You have WAY more power to negotiate than you realize. I had to learn that pearl from a semi-retired physician who took me aside about three years after residency. It was eye opening and he was correct.

Was there a big surprise when hitting the “real world”?
Not really, working 15 years prior to medical school helped prepare me for the work force. I do wish I had done a urology month in medical school or residency since I deal with it all of the time as a PCP.

What do you miss most about the Corvallis area?
Living in a smaller community and such a cute town. I love living in Eugene, but it definitely has a little more city-grit to it.

Where do you see yourself in 10 years?
Working as an obesity medicine specialist so I can take patients off of all the medications that I (and other physicians/PAs, NPs) originally started them on. It is remarkably satisfying to do.

If you were to start all over again would you choose your same career/specialty?
Absolutely.

Can you provide an overview of your time served in the military?
I joined the Army National Guard in June of 1988, right out of high school. I was a private and worked my way up to Sergeant First Class before starting medical school. During that early phase of my career, I deployed to Operation Desert Shield/Desert Storm as a medical lab technician in a MASH unit and made life-long friends in that unit. I later worked full-time for the National Guard for 14 years before quitting the active duty side and returning to undergraduate school to complete a bachelor degree in Biology. I took commission as a Medical Service Corps Officer upon entering medical school in 2006 and was recommissioned as a Medical Corps Officer in the Louisiana Army National Guard on graduation day in 2010. I transferred to the Oregon Army National Guard in 2013 and have served in several positions within different state units. I primarily function in making deployable decisions in preparation for unit deployments and assist in reviewing medical/psychological concerns in those who have returned home from deployments.

Life lessons learned from being in the military?
I learned my work ethic there. I learned to work hard and to try to do everything the right way the first time. It was critical in teaching me how to work well in a team and why it is important.

How have these lessons contributed to your current career?
Well, people like working with me because I'm a team player and treat my team well and with respect. My patients like that I am thorough and take their concerns seriously—they are part of the team.

Dr. Wood (right) and friends hiking a few months back.
Wellness Corner

Substance Abuse Part 1

Our last three issues of GME quarterly focused on the topic of fatigue among clinicians. We focused on identifying fatigue, the responsibilities of each care team member and ways to mitigate fatigue. In this issue we will begin our first mini-education series on substance abuse, its risk factors and its effects on professional lives. We will focus on identifying the six substances most commonly abused by physicians and how to recognize common indicators, signs and symptoms of substance abuse in residents and faculty. Our future issues will focus on favorable treatment outcomes of substance abuse in residents and faculty, review the recovery rate and discuss strategies for creating a non-punitive, collegial culture in addressing the issues of substance abuse.

The information provided in the Wellness Corner is driven by research that has been conducted over the years regarding residents, physicians and their wellbeing. Educational content for this piece comes directly from the Learning to Address Impairment and Fatigue to Enhance Patient Safety (LIFE) curriculum developed by Duke University.

Substance abuse and addiction can be a hard thing to identify, among peers and within ourselves. Many stereotypes exist regarding addicts, and these stereotypes can cause us to overlook and ignore serious disruptive habits that our peers may be exhibiting. An individual can be an addict and still function, at least, up to a point: doctors notoriously function well at work. Usually their professional performance is the last thing to decay.

The six most commonly abused substances among physicians are:

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<td>1. Alcohol</td>
<td>4. Illicit opioids (i.e. heroin)</td>
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<tr>
<td>2. Marijuana</td>
<td>5. Stimulants (i.e. Ritalin, Adderall, other amphetamines)</td>
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<tr>
<td>3. Opiates (mostly prescription opiates, i.e. hydrocodone)</td>
<td>6. Cocaine</td>
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**Risk factors for substance abuse in physicians**

- Easy access to pharmaceuticals either through diverting sample medications, self-prescribing, falsifying prescriptions, or obtaining prescriptions from colleagues
- Stress at home and/or at work
- Emotional problems, self-treatment of pain, abnormal sleep patterns, and chronic fatigue
- Psychic stimulation
- Family history of substance abuse (genetic)

**Early signs and symptoms of substance abuse in Personal/Family Behavior:**

- Isolation and withdrawal from family, friends, church, leisure activities
- Erratic or violent behavior in the home
- Sexual dysfunction and/or promiscuity (e.g. multiple sexual partners)
- Legal problems, especially driving convictions
- Separation or divorce from partner
- Compulsions (e.g. excessive spending, gambling)

**Early signs and symptoms of substance abuse in Social Behavior**

- Inappropriate behavior at social functions
- Citation for driving while intoxicated (DWI)
- Citation for “careless and reckless driving” plea-bargained down from DWI
- Deterioration in personal hygiene, clothing and dressing habits
- Accidents, falls, motor vehicle collisions

**Early signs and symptoms of substance abuse in Professional Behavior (often the last to deteriorate)**

- Recurrent tardiness
- Rounds very early or very late (to avoid others and escape scrutiny)
- Behaves inappropriately during rounds
- Shows diminished performance (poor quality of presentations, charting, dictations)
- Absent, often without a viable excuse
- Over-prescribes medicines, especially controlled substances
- Wears long-sleeved scrubs and/or has track marks or injection sites
- Requests drug samples from colleagues or nurses
- Alters behaviors
- Becomes the subject of “hospital gossip”
- Has alcohol on breath
- Slurs speech and/or has pinpoint pupils

For a list of wellness resources see page 12 or contact Megan Kinane at mkinane@sarnhealth.org
Quality and Patient Safety
Combating the occurrence of bloodborne pathogen exposures (BBPE)

By Aaron Crawford, MPH, SHS Safety Coordinator and Debbra Tatum, RN, BSN, Employee Health Nurse

The occurrence of bloodborne pathogen exposure (BBPE) events continues to be a huge concern for health care workers nationwide. Bloodborne pathogen exposures within GSRMC facilities have risen each year despite adaptation of sharps safety devices and repeated efforts to raise awareness with education and training.

At the end of 2017, 79 bloodborne pathogen exposures were reported by GSRMC health care workers, students, agency employees or licensed independent practitioners, compared to: 61 exposures in 2016, 50 exposures in 2015, 51 exposures in 2014, and 38 exposures in 2013.

Bloodborne pathogen exposures are 100% preventable, and the consequences may be severe. Employees are at risk of exposures to HIV, Hepatitis B and Hepatitis C. When a bloodborne pathogen exposure occurs, OSHA requires that employers perform an investigation, as soon as possible, to determine the root cause. Common factors that contribute to injuries include one or more of the following: feeling rushed, working in close proximity when handling sharps, inexperience with performing a procedure or handling a device, fatigue, distraction or complacency.

Twenty percent of the BBPE exposures during 2017 were caused by splashes to mucous membranes. Compliance with wearing personal protective equipment (PPE) has been a challenge since the potential for splashes is often difficult to anticipate. To prevent these exposures, employees must follow Standard Precautions and wear appropriate PPE (eye and face protection) during tasks and activities that are likely to generate a splash/spray of blood, bodily fluids, or secretions and excretions.

OSHA requires health care organizations to evaluate their BBPE data annually and determine what steps they must take to decrease their exposures. The goal should always be “zero”.

When a hazard cannot be eliminated, we then must rely on engineering controls, safe work practices, administrative controls, and the use of PPE. “These controls are highly dependent on personal and professional behavior, training, education, availability and access, adequate staffing, and the overall anticipation of hazard being likely to occur.” In future articles, we will go into further detail about this hierarchy of controls and provide examples of what mitigation strategies are currently being implemented at GSRMC.

Surgeons in training are at an elevated risk for needle-stick injuries (The New England Journal of Medicine, 2007). In 2010, GSR Employee Health began to note an increase in our BBPEs. We linked it to exposures that were occurring as our resident surgeons began practicing in the OR and clinic settings. This prompted an in-depth root cause analysis of their exposures to determine what preventive measures needed to be initiated. We must promote a culture of safety and ensure that our medical residents learn to practice in the safest methods possible. The education, knowledge and skills they develop during their training will guide them to become competent healthcare providers throughout their career.

How can you protect yourself from a bloodborne pathogen exposure?

- Avoid the use of needles where safe and effective alternatives are available.
- Use devices with safety features unless an exception form is completed.
- Never recap or reuse needles.
- Promptly dispose of used needles in appropriate sharps disposal containers.
- Tell your manager about any needlestick or splash hazards you observe.
- Wear PPE whenever there is potential for splashes.
- Report bloodborne pathogen exposures to your manager immediately.
- Complete bloodborne pathogen exposure evaluation and testing per the SHS Bloodborne Pathogen Exposure Management policy.
Did You Know?

Resident and Fellow assessment and evaluation: Part Two
Clinical Competency Committee and it’s purpose
By Megan Kinane, MHA

In our last issue of GME Quarterly, we reviewed the six competencies that lay the foundation of a well rounded physician. Specific evaluation tools are used throughout residency education to identify their level of competence among patient care and procedural skills, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and system-based practices.

This article will review Clinical Competency Committees (CCC) and the role that the CCC plays in Graduate Medical Education and in the growth and development of resident physicians.

As required by our accrediting body, the American Council of Graduate Medical Education (ACGME), every residency and fellowship program must have a CCC composed of at least three or more members of the teaching faculty (Adolsek, Padmore, Hauer & Holmbe, 2017). Of the many purposes for the CCC reviewed below, it’s ultimate purpose is to “demonstrate accountability as medical educators to the public, that graduates will provide high quality, safe care to patients and maintain the standards of the health care systems” (Adolsek, Padmore, Hauer & Holmbe, pg. 4, 2017). To do that, the CCC thoroughly reviews each resident on their progress and competency among the six foundational domains mentioned earlier. These reviews not only track the progress of every resident; they are also the foundation for promotion, remediation and in some cases dismissal from the program.

During CCC meetings, the committee will review multiple assessment tools to evaluate the resident’s progression. The bulk of the review will come from resident evaluations, as mentioned in our last issue. Other assessment tools may include, but are not limited to, comments submitted through GME’s website from other SHS employees, Shining Stars, a resident’s operative and procedure log, and exam scores. Each program is responsible for creating the framework for which assessments will be created and used to identify a resident’s clinical progression and their professionalism.

Below highlights some of the main purposes of the CCC as identified by ACGME:

| Program | • Develop shared mental model of what resident/fellow performance should “look like” and how it should be measured and assessed  
|         | • Ensure assessment tools sufficient to effectively determine performance across the competencies  
|         | • Increase quality, standardize expectations, and reduce variability in performance assessment  
|         | • Contribute to aggregate data that will allow programs to learn from each other by comparing residents and fellows judgements against national data  
|         | • Improve individual residents/fellows along a development trajectory  
|         | • Service as a system for early identification of resident/fellows who are challenged  
|         | • Identify weaknesses/gaps in the program as the first step in program improvement  
|         | • Model “real time” faculty development  
| Faculty | • Facilitate faculty members’ development of a shared mental model of what is expected within each of the competencies  
|         | • Improve documentation by simplifying and creating “more actionable” and efficient assessment tools for the direct observation of trainees in the clinical learning environment  
|         | • Fulfill the professionalism inherent in the faculty member’s role as to contribute to high quality teaching and assessment as part fo the program  
| Residents/ Fellows | • Improve the quality and amount of feedback; normalize constructive feedback  
|         | • Offer insight and perspective of a group of faculty members  
|         | • Compare performance against established competency benchmarks (rather than against peers in the same program)  
|         | • Allow earlier identification of sub-optimal performance that can improve remedial intervention  
|         | • Improve “stretch goals” for resident/fellows with acceptable performance to achieve even greater proficiency  
|         | • Provide transparency regarding performance expectations  
| ACGME | • Enhance progress toward competency-based education with outcomes data  
|         | • Establish national benchmarks for trajectory of resident/fellow skill acquisition that can be used for specialty-specific feedback  
|         | • Provide better measure for public accountability  
|         | • Enable continuous quality improvement of residency/fellowship programs  
|         | • Document the effectiveness of the nation’s graduate medical education efforts in provision of graduates prepared to meet the needs of the public

Featured Abstract

Gastrojejunostomy Technique and Early Marginal Ulcer Formation after Roux-en-Y Gastric Bypass: A single surgeon’s experience with 248 consecutive patients

Ryan Willen, DO, Don Yarbrough, MD, Erika La Vella, DO, Olivia Pipitone, MPH

Samaritan Health Services

IRB #18-066

Marginal ulcer formation is a common yet misunderstood complication after roux-en-y gastric bypass (RYGB), occurring in 1-16% of patients. Ischemia at the site of the gastrojejunostomy (GJ) anastomosis is thought to contribute to early marginal ulcer formation. Limited studies have compared hand-sewn techniques to linear staple anastomosis during GJ creation and the incidence of early marginal ulcer formation. A single bariatric surgeon employed three different techniques during creation of the GJ anastomosis during RNYGB surgeries from 2010-2018: a linear staple technique, a hand-sewn outer running suture technique, and a hand-sewn outer interrupted suture technique. Retrospective data was collected from the electronic medical record on 248 consecutive patients who underwent RYGB from this surgeon and had at least one month of follow up data available. Marginal ulcer formation within one month after surgery was seen least often in the hand-sewn running outer-row technique (0.8%), compared to the hand-sewn outer interrupted technique (3.5%) and the linear staple technique (5.6%). Rates of marginal ulcer formation any time after surgery were more similar between groups with 13% in the hand-sewn running outer-row technique, 11% in the hand-sewn outer interrupted technique, and 14% in the linear staple technique. A multivariable logistic regression model was used to explore risk factors for ulcer formation between those who ever developed an ulcer post-operatively, and those who did not. Risk factors for marginal ulcer formation included pre-operative Type II Diabetes or corticosteroid use as well as post-operative PPI, alcohol use, or NSAID use. GJ anastomosis technique did not significantly affect the odds of post-operative marginal ulcer development.

BACKGROUND

• Marginal ulcer of the gastrojejunostomy (GJ) anastomosis is a frequent complication after Roux-en-Y gastric bypass (RYGB), occurring in between 1-16% of patients.1
• Ulceration can arise as either an early or late complication after surgery, with an average time to ulceration around 8 months2 and up to 95% occurring within the first year.3
• Early marginal ulcers have previously been defined as those which occur within 1-2 months after surgery.2
• One theory behind early marginal ulcer formation is that ischemia at the site of the gastrojejunostomy (GJ) anastomosis may cause ulcer development in these patients.4
• Ischemia at the site of the gastrojejunostomy (GJ) anastomosis may cause ulcer development in these patients.4

OBJECTIVES

1. To compare the incidence of early marginal ulcer formation across three different techniques during GJ anastomosis creation.
2. To explore potential risk factors for marginal ulceration.

METHODS

From 2010-2018 a single surgeon used three distinct techniques to create the GJ anastomosis during RYGB on 248 patients in an attempt to decrease marginal ulcer formation:
1. Linear staple
2. Handsewn with both an inner running mucosal layer and outer running suture layer (running)
3. Handsewn with an inner running mucosal layer and an outer posterior interrupted suture layer (interrupted).

Data was retrospectively reviewed:
• Technique used
• Marginal ulcer formation
• Pre-operative and post-operative risk factors identified in previous literature
• Patients without at least 1 month of follow-up were excluded
• Marginal ulcer formation within one and three months after surgery was calculated for each technique

A multivariable logistic regression model was used to explore risk factors for ulcer formation between those who developed a marginal ulcer and those who did not.

RESULTS

Table 1. Study subjects outcomes across anastomosis technique

| Technique | All (n=248) | Interrupted (n=145, 54%) | Linear (n=37, 15%) | Running (n=127, 51%) | P-Value
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</thead>
<tbody>
<tr>
<td>Ulcer development within 1 month</td>
<td>2% (6)</td>
<td>4% (3)</td>
<td>5% (2)</td>
<td>3% (1)</td>
<td>0.2</td>
</tr>
<tr>
<td>Ulcer development within 3 months</td>
<td>6% (14)</td>
<td>8% (6)</td>
<td>6% (2)</td>
<td>5% (6)</td>
<td>0.7</td>
</tr>
<tr>
<td>Ulcer development ever</td>
<td>12% (33)</td>
<td>13% (19)</td>
<td>14% (5)</td>
<td>13% (17)</td>
<td>0.8</td>
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</tbody>
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*Values are testing for significant differences across anastomosis type using Pearson’s chi-squared test.

CONCLUSIONS

• There was no significant difference in the frequency of marginal ulceration based on the three GJ techniques we examined, in both unadjusted and adjusted analysis.
• At 1 month post-op, marginal ulceration occurred least frequently in the running staple group and most frequently in the linear staple group. Over time, the rate of ulcer formation converged for all three groups.
• Risk factors for marginal ulceration included pre-operative Type II DM and elevated corticosteroid use, but not history of H. pylori or pre-operative PPI use. Post-operative risk factors included RA and alcohol use.
• In this study, HTN was not associated with marginal ulceration, but was more prevalent in the non-ulcer group. This stands in contrast to a previous study by Bhargava et al.11 which showed HTN as a risk factor for marginal ulcer formation.
• Previous research has demonstrated inconsistently that risk factors for marginal ulceration include: smoking, corticosteroid use, alcohol use, type 2 diabetes mellitus (T2D), history of H. pylori, whereas PPIs are protective.12,13

FUTURE IMPLICATIONS

• Future studies should look at the role of HTN and elevated corticosteroid use in marginal ulcer formation
• Studies with larger sample sizes comparing GJ techniques and early marginal ulcer formation could help establish whether GJ technique affects early marginal ulcer formation.

REFERENCES & ACKNOWLEDGEMENTS

1. JAMA. 2012;307(8):775-782
11. JAMA. 2012;307(8):775-782
17. Obes Surg. 2018;28(9):2277-2282
GME Directory and Resources

Wellness Resources

Resources to assist those experiencing burnout, depression and substance abuse:

- Vital Work Life (For Residents/Physicians)
- Calapooia Employee Assistance Program—From the SHS Insider, search “Calapooia Employee Assistance”, click on the first option and you will be taken to a PDF brochure. Please contact Megan Kinane or your HR office if you are having trouble finding this information.
- Health Professionals’ Services Program (HPSP) & Reliant Behavioral Health (offered through the state)

If you are battling fatigue—remember that SHS has multiple RESIDENT ONLY sleep rooms available:

- GSRMC first floor: 2 surgery sleep rooms
- Ancillary Building second floor: 6 sleep rooms
- Resident and Fellows are eligible for a taxi ride home when feeling fatigued. Please reference our Emergency Safe Ride Home Policy

Counseling Services (family, marital, relationship):

- Vital Work Life (for Residents/Physicians)
- Calapooia Employee Assistance Program

Financial Counseling (budget and credit counseling, debt management plan, housing counseling (pre-purchase, mortgage and rent delinquency counseling) and credit report review):

- Vital Work Life
- Money Management International
- Principal Financial Group

Policies and Procedures

Resident and Faculty access: New Innovations Portal
All others: SHS Insider: Policies and Procedures: Departments: Graduate Medical Education