MEDICAL AFFAIRS NEWSLETTER

MARCH/APRIL 2019

Welcome New Providers

Adrian Dyer, MD – Pediatrics (Cardiology)

James Sikes, MD – Ambulatory/Urgent Care

Giri Sura, DO – Diagnostic Radiology

Rebecca Sandoval, CNIM – Surgical Services
Sponsoring Physicians: Drs. Kathy Toler and William High, Jr.

Robert Gunderson, CNIM – Surgical Services
Sponsoring Physicians: Drs. Kathy Toler and William High, Jr.

Morgan Sims, PA – Physicians Assistant (Internal Medicine)
Sponsoring Physician: Dr,. Michael Caglia, MD

Ubaldo Estrada, FNP – Advance Practice Nurse (Internal Medicine)

Goodbye and Well Wishes

Christopher Case, MD – Pediatric Cardiology

Audrey Mangwiro, MD – Internal Medicine/Hospitalist

Joseph Oei, MD – Pain Medicine

Core Action Value # 3
Awareness

Awareness is essential to career, business, and personal success in every dimension, including: parenting, management, entrepreneurship, sales, and patient caregiving.

Core Action Value #4
Courage

One person with courage can change the world. The courage required of today is more often moral than physical.

"The mother of all fears is the fear of success"
Steven Pressfield
The War of Art

MIDLAND HEALTH

forward thinking

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Introduction of Capnography Placed on Hold

Since our last DNV survey many of us have been working to align and systematize our moderate sedation procedural processes. With guidance from Anesthesia and recognition of the importance of early detection of respiratory failure, we were developing a means of deploying Capnography to be used with all moderate sedation procedures at Midland Memorial.

It was a team effort led by nursing and respiratory services to develop a proforma of the cost of equipment, training and other resources. Over the course of several months and much effort, it was determined to implement the use of Capnography would cost several hundred thousand dollars. Additionally, it was recognized that despite Capnography being considered a best practice, our current processes are extremely safe with no respiratory failure induced harm to patients during moderate sedations. When considering value based care (quality over cost) we would be raising the denominator much more the numerator. With that in mind, we are placing the deployment of Capnography on hold for now. It will be revisited in the future.

Tele-Medicine Success

While we have struggle to recruit some service lines, Telemedicine is proving a cost effective and high quality alternative. We have been relying on Tele-Neuro services for acute management for a year with success. We recently added a week a month of routine coverage. Allowing a remote neurologist in Houston to round and see new consults via a robot that is moved from room to room. The quality of the service has been excellent and the relief to the call burden has been well received.

We are currently in discussion with an Infectious Disease service out of Dallas and may have an opportunity to provide Tele-ID in the near future.

Oral Acetaminophen Equivalent to IV. Except in Cost

As the alarm bells of opioid use have rung, our alternative pain management strategy has been improved. Low dose ketamine, increased use of Acetaminophen, NSAIDs and gabapentinoids has allowed for significant reduction in opioid use. Along with the introduction of best practices that have improved the quality of care, a misconception has led to over $500k in waste. Despite the pain management equivalency between oral and IV Acetaminophen many providers are ordering IV route when oral is available. The biggest offenders are the Emergency Department and Perioperative area, Critical Care and Ortho Neuro. Reasonable reductions can save $250k-$500k for Midland Health. The following is some further information provided by our pharmacy after a care review of the subject:

History and Cost of Intravenous Acetaminophen Use at MMH

IV acetaminophen was released in the European market in 2002, and received approval by the FDA for US release in 2010. IV acetaminophen was added to the formulary at MMH in February 2011 primarily to be used for post-operative pain management. At the time of addition, the cost was approximately $10/dose (it is now $32/dose). It was primarily marketed by Cadence Pharmaceuticals as an adjunct to help decrease opioid consumption post-operatively in patients undergoing surgical procedures. Over time, the use spread to different service lines in the hospital due to the perception of increased efficacy and the ease of use.

In speaking with healthcare providers in the institution, these were the reasons cited as to why they frequently prescribed the medication outside of the drug literature:

- Perception throughout the organization as to it's improved efficacy versus other routes
- Providers getting busy with other things and forgetting to switch to PO
- Nurses routinely asking for it
- Physician desire to spare nurses from giving a suppository
- Physician desire to spare patients from receiving as suppository

Table 1 is a summary of IV acetaminophen utilization from 2015 to 2018. The annual rate of increase in use over the four-year period ranged from 0 to 55%. The lack of increase between 2016 and 2017 was likely due to a pharmacy-managed IV to PO protocol. The high increase in use from 2017 to 2018 was driven by increased overall prescribing by all service lines and the doubling of use by the ER. ***If we experience an increase in utilization of 55% combined with the price increase, we have the potential to spend $1,374,314 in 2019.***

Table 1: IV Acetaminophen Utilization 2015-2018 by Unit

Location	Doses Given 2015	Doses Given 2016	Doses Given 2017	Doses Given 2018	Cost 2018*
ER	536	2,667	4,774	7,962	$247,221
7th-Postsurgical	3,365	4,432	4,779	6,103	$196,150
5th-ICU/CCU/PCU	3,178	3520	2,111	3,738	$120,139
8th-ONN	1,641	2,753	2093	3,457	$111,108
6th-Medical	1,096	1,639	1,396	1,556	$50,010
Antepartum/Postpartum/L&D	1,285	216	235	1,556	$50,010
`OR/PACU/SDS	154	679	528	558	$17,934
Oncology	384	459	457	546	$17,548
Pediatrics	66	0	0	254	$8,164
CVOR/Heart Institute	0	17	3	13	$418
Total	**11,705**	**16,384**	**16,384**	**25,473**	**$818,702**

***Calculated at $32.14/dose**

Comparing Midland Health use other hospitals in our purchasing coalition, the 2018 annual spend for the Texas Purchasing Coalition (TPC) is listed below in Table 2. Most of these hospitals are similar to MMH with respect to type of community and patients served.

United Regional Healthcare System was the lowest spend of all the hospitals. They restricted use via the P&T Committee due to cost and efficacy. IV acetaminophen is limited to 4 total doses and is only orderable by a few surgical service lines.

Table 2: TPC Organization Annual Spend 2018

TPC Member	May-September 2018 Annualized Spend
United Regional Healthcare System	$62,002
Citizens Medical Center	$89,664
Southeast HEALTH	$153,573
Parkview Medical Center	$242,534
Shannon Health System	$303,506
Medial Center Health System	$307,842
Hendrick Health System	$393,691
CHRISTUS Trinity Mother Frances Hospitals	$534,267
Midland Memorial Hospital	$979,891

Table 3 is a summary of the cost per dose of the various formulations of acetaminophen. Acetaminophen tablets are the least expensive, while the IV formulation is the most expensive at approximately 700 times the cost of an equivalent dose of oral therapy.

Table 3: Cost of Various Acetaminophen Formulations

Formulation	Cost Per Dose
Acetaminophen 1000 mg PO Tablet	$0.05
Acetaminophen 1000 mg Elixir	$3.19
Acetaminophen 975 mg Suppository	$1.45
Acetaminophen 1000 mg IV	$34.81

Evidence Summary

Evidence Summary of Intravenous Acetaminophen Use in the ER

In a 2016 review (Table 5) of all available randomized controlled trials evaluating the use of IV acetaminophen in the ER, the authors sought to examine the evidence[4]. Of the fourteen trials available, three of them demonstrated superiority of IV acetaminophen over the comparator, eight found no difference, and three favored the comparator over IV acetaminophen. Based on this, there is little evidence to justify the routine utilization of IV acetaminophen over alternate therapies.

Table 5: Summary of Studies Included in 2016 Review of IV Acetaminophen Use in the ER

Trial	Intervention	Indication	Conclusion
Masoumi et al., 2014	APAP IV vs. morphine	Acute renal colic	IV APAP reduced pain scores more than morphine
Shams Vahdati et al., 2014	APAP IV vs. morphine	Headache	IV APAP reduced pain scores more than morphine
Serinken et al., 2014	APAP IV vs. morphine	Acute renal colic	No differences
Oguzturk et al., 2012	APAP IV vs. tramadol	Abdominal pain	Tramadol reduced pain scores more than IV APAP
Turkcuer et al., 2013	APAP IV vs. dexketoprofen	Headache	No difference
Grissa et al., 2011	APAP IV vs. piroxicam	Acute renal colic	IV APAP reduced pain scores more than piroxicam
Zare et al., 2014	APAP IV vs. morphine	Bone fracture	No difference
Eken et al., 2014	APAP IV vs. NSAID vs. morphine	Lower back pain	No difference
Bektas et al., 2009	APAP IV vs. morphine	Acute renal colic	No difference
Craig et al., 2012	APAP IV vs. morphine	Limb trauma	No difference
Morteza-Bagi et al., 2015	APAP IV vs. morphine	Acute renal colic	No difference
Pickering et al., 2015	APAP IV vs. APAP buccal	Leg or arm pain	No difference
Azizkhani et al., 2013	APAP IV vs. morphine	Renal colic	Morphine reduced pain scores more than APAP
Askel et al., 2015	APAP IV vs. topical lidocaine vs.	Scorpion sting	Lidocaine reduced pain scores more than APAP

PHARMACY UPDATES

- The hospital stock of **IV azithromycin** is down to three vials. This drug is on national backorder due to manufacturing delays. Estimated resupply dates range from March to October of this year. We realize this is a wide range, but we expect it will be much earlier than October. More information can be found here: https://www.ashp.org/drug-shortages/current-shortages/Drug-Shortage-Detail.aspx?id=380.

Other options:

1.) Our azithromycin PO stock is stable and can be used in place of IV therapy in those able to tolerate PO.

2.) At our hospital, azithromycin IV is generally used to provide atypical coverage for community-acquired pneumonia. If PO therapy is inappropriate for these patients, adding IV doxycycline or levofloxacin is an option to provide this coverage.

- **Betamethasone Suspension for Injection (Celestone)** is on shortage due to shipping delays. More information can be found here: https://www.ashp.org/Drug-Shortages/Current-Shortages/Drug-Shortage-Detail.aspx?id=485.

The estimated resupply date is this month.

We don't have any stock currently in the hospital. Most of our supply is used in L&D. Dexamethasone is an acceptable alternative in most cases.

For more information, contact **Michaela Daggett at 432-221-1685**

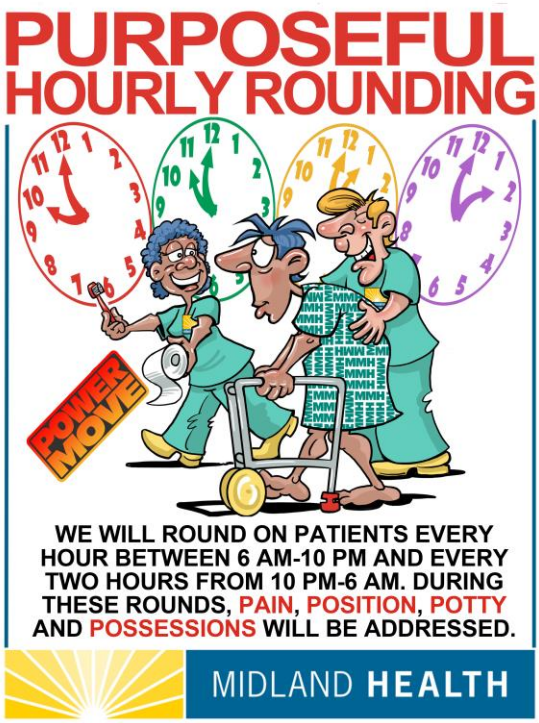
Gastrointestinal Panel by PCR

There has been a nationwide FDA mandated recall of our Gastrointestinal Panels by PCR. There were some questions regarding the validity of positive Campylobacter and Cryptosporidium results. Providers have been notified about affected tests. Unfortunately, due to this recall the panels have been backordered with no current release date. We have been told we would hear about a possible release date early next week.
In the interim we plan on sending orders for Gastrointestinal Panels by PCR to our reference lab. Results will be scanned into the Outside Lab Reports section of the Notes tab in PowerChart and turn-around-times will be significantly longer than the 2 hours it took for the in-house test. ARUP turnaround time will be 2-3 days. We will still offer the stand-alone C. difficile by PCR test in-house. We apologize for the temporary inconvenience.

If you have further questions/concerns, please contact, **Taylor Johnson at 432-221-1785**

March Power Move

April Power Move



ATTENTION!

UPDATE - Call Schedules

Please send all call schedules to mmhcredentialing@midlandhealth.org or fax to 432-221-4253. **Remember they are due one week prior to the end of a month, the following months call schedules must be available in the Medical Staff Office so that they can be reviewed and distributed.**

Medical Affairs/Medical Staff Services Update

As most people know, Leigh Milefsky, interim Manager Medical Staff Services is no longer with Midland Memorial Hospital.

Rebecca Pontaski will be taking over Medical Staff Services while continuing as Administrator of Midland Quality Alliance. She along with the rest of the staff in both Medical Affairs/Medical Staff Services are available to assist you.

You can submit ideas, announcements and important information to be published in the newsletter to

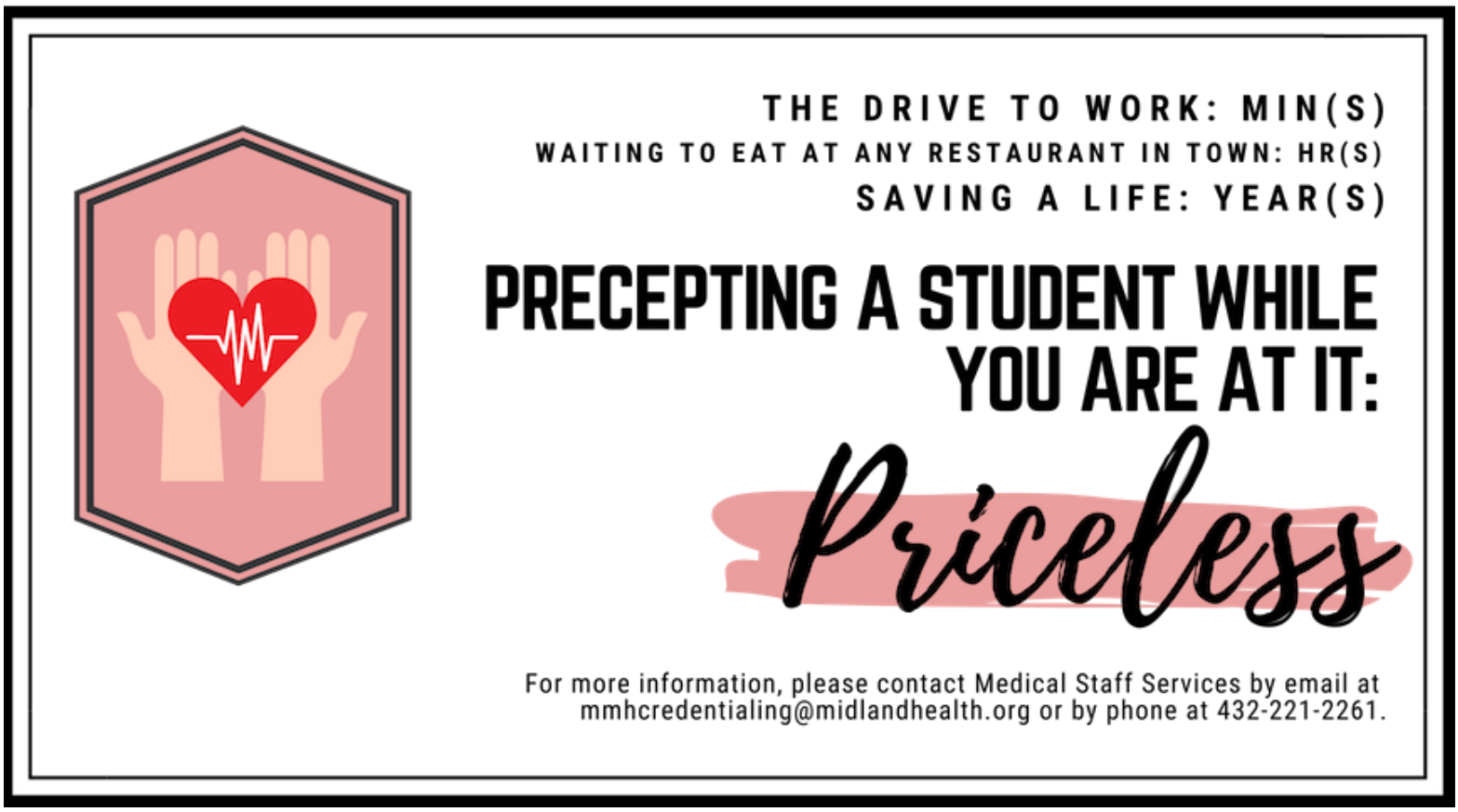
rocio.spencer@midlandhealth.org

The Primary Care Pathway Program

This Primary Care Pathway Program (PCPP) allows the first- and second-year students to shadow your practice a few days each year. This will give many of the pre-med student's first exposure to the practice environment. We are most interested in primary care, outpatient settings for the shadowing. The students are there to watch and learn - no hands on and only as much observation as you feel comfortable allowing.

The PCPP is in its fourth year and is a partnership between Midland Health, Midland College and the University of North Texas Health Science Center (UNTHSC). The PCPP enables local high school graduates an affordable accelerated pathway to a career in Medicine.
The program includes two years of college at Midland College. If able to successfully complete the rigorous two-year program, they then complete a third year at UNTHSC before entering the Osteopathic program at UNTHSC.

We hope to benefit by having local students complete the program and return to Midland for residency training in Family Medicine. Thanks for the help.
Please contact Lexie Barker at 432-221-2261 if you are interested.



The Medical Staff Office celebrated National Physician's Week (March 25-31) with a lunch for all Physicians.

Thank you for all you do!

Midland Quality Alliance

MQA pathway to ~~surviving~~ THRIVING in 2018 and beyond

Heather originated from Ontario, Canada graduating from the University of Ottawa, School of Nursing in 1996 with a Bachelor of Science in Nursing. She immigrated to Texas shortly after graduation and has spent the last 22 years here practicing in various areas of nursing.

Since moving to Midland in 2014, she has focused on case management in both acute care and care coordination. In 2018, Heather became the Care Manager for Midland Quality Alliance and has made it her passion to assist in and promote the health of the covered lives of Midland Health. She has been able to get prescriptions for patients at reduced or no-cost, helped others to lower their HgbA1c through health coaching, and assisted others to reach their health-related goals.

Outside of work, she enjoys spending time with her husband, Felix, and son, Matthew as well as with family in Victoria, Texas.

Please consider sending a referral by phone or e-mail on any MQA patients that you feel could benefit from care management services and she would be happy to engage them in our program. Heather can be reached at 432-221-3456, Monday through Friday 8am – 5pm, or by e-mail at heather.garza@midlandhealth.org.

MQA pathway to ~~surviving~~ THRIVING in 2018 and beyond

The next MQA General Session Meeting is scheduled for May 22, 2019 at Shared Spaces

More details to come

Please RSVP to rocio.spencer@midlandhealth.org

Due to having outside catering, we need clear count on attendees and vegetarian options

1/28/19 Dr. Ramireddy, Dr. Gibson, Dr. G Patel
"Thank you for all the good care you gave me and how sweet you all were to me. To all the caregivers that gave me care during my stay at the hospital, thank you."

Dr. Marshall Early
"Very proud to have gotten him for my surgery. He is respected and a blessing to have as my doctor. I was scared about being here and thought I would die. Then I asked him how he felt about my case, he told me bad things that could happen and how rare they were. He told me we would get through this and he didn't see any problems with it. Thank you for Dr. Early"

1/30/19 Dr. Alworth
"Thank you for trying to get my foot to heal."

Dr. Devalla
"This young lady has a face and smile that lights up the faces of others. Takes time to help anyone, when I asked if she liked her job, she smiled and said yes. As I found others like her makes a people stay here. When I ask a question a smile burst across her face."

Corrie Shuler, CRNA
"She has a calming effect on people. When you are not really sure what's coming things can be very tense on the patient. She speaks as though she has known you for years. She is very easy for you to want to put your trust in her."

1/31/19 Dr. Klunick
"Personality great, very smart and kind man. When talking with him, the fear goes away and peace and trust quickly sets in. These kinds of people makes it easy to put your life in their hands. Makes this hospital one of the greatest."

From most recent Patient Family Advisory Council meeting
"ER Top Notch to a room in 5 hours (and they had 2 traumas)
Dr. Petersen, Dr. Gadaraja, and Dr. Guillen were awesome"