July/August 2019
Vol. XXXVIV No. 4

In This Issue

2 From the President
Warren Lanphear, MD, FACEP
“It is my privilege and honor to step into the role as President of the Michigan College of Emergency Physicians. I have spent years watching and listening to great Michigan leaders assume this role, address the issues of their time, and guide us in continued advocacy for our patients and our profession.”

3 From the Outgoing Editor
Gregory Gafni-Pappas, DO, FACEP
“Thank you for the opportunity to serve you as the MCEP News and Views Editor over the past 6 years. This has not only been a great way to give back to MCEP and my colleagues in Emergency Medicine, but it has also been an eye-opening personal experience that has been more than fulfilling.”

4 From the New Co-Editor
Sara Chakel, MD, FACEP
“My name is Sara Chakel, and I am excited to be incoming co-editor for MCEP News & Views along with Meghan Liroff. Like Dr. Liroff, I am a native Michigander, and I completed my medical education and residency in the state as well.”

4 From the New Co-Editor
Meghan G. Liroff, MD
“My name is Meghan Liroff, and I’m an emergency physician at Henry Ford Hospital in Detroit. I’m home grown—I completed my undergrad, med-school, and residency in Michigan, and I plan to be here for the long haul.”

4 Reimbursement Corner
Lynn Nutting, MPA, CPC
“October 1, 2019 will bring a few changes to ICD10 that may have an impact on the coding of emergency medicine claims.”

6 Legislative Column
Bret Marr, Lobbyist
Muchmore, Harrington, Smalley & Associates
“After a spring focused on Auto No Fault, the Governor’s “Fix Our Damn Roads,” proposal, and limited action on the state budget, the Michigan Legislature is in recess until late August, if not until after Labor Day.”

7 Summer Assembly Update
Gregory Gafni-Pappas, DO, FACEP
“The 46th Michigan College of Emergency Physicians was held at the beautiful Grand Hotel on Mackinac Island on July 28-31, 2019.”

10 MCEP Resident Case Report
Benjamin Duncan, MD, Robert Shaffer, MD, David Hackenson, MD, University of Michigan Department of Emergency Medicine, Ann Arbor, MI.

Contents
2 Calendar of Events
14 PRO ORTHO
15 Should I Refinance My Student Loans?
It is my privilege and honor to step into the role as President of the Michigan College of Emergency Physicians. I have spent years watching and listening to great Michigan leaders assume this role, address the issues of their time, and guide us in continued advocacy for our patients and our profession. I hope I can make my own contribution and leave the College a better place when I turn over the reins next summer.

We celebrated the 50th anniversary of ACEP in San Diego last fall, and this year we celebrate the 50th anniversary of MCEP during our summer meeting on Mackinac Island. We have a tremendous heritage of emergency medicine leaders in this state, and we get to call out their names again – John Wiegenstein, John Rupke, Greg Henry, Ronald L. Krome, Brooks Bock, Judith Tintinalli, Dennis Whitehead, and others. Followed by the past leaders, there are those trailblazers who are still active in our college – Paul Pomeroy, Robert Malinowski, Kathleen Cowling, Greg Walker, David Overton, Brad Walters, and others. Lastly, there are the recent leaders who have had a great influence on me – Brad Uren, Michael Baker, Kevin Monfette, James Zaadeh, Larisa Traill, Jacob Manteuffel, and Rami Khoury. I know I have left out equally important and influential people, and I apologize for that. I stand in their shadows, and I am humbled to carry on their work.

With the help of these colleagues, we survived the crisis of losing our executive director, the beloved Diane Kay Bollman. We brought on Belinda Chandler, and we are now as strong as ever. We have good reason to be celebrating and thanking those who have built this specialty and made the Michigan chapter the best in the country.

After the festivities are done, the work continues. ACEP is very active in federal efforts to end surprise billing. Some ED patients receive unexpected bills because of their high deductible and/or due to the provider being out of network while the facility is in network. We support greater transparency and a better process for resolving out-of-network claims. Currently, we are pushing for arbitration to settle disputes rather than a federal benchmark fee. We want to settle on reimbursement that is reasonable and law that protects our ability to negotiate with insurers. The key is education of our legislators about the issues and what we believe to be the best solution. As this issue goes to press, ACEP is asking members to contact their legislators and advocate for specific amendments. We brag about wearing the white hat in the fight, so we have to remember to be tactful and articulate in the message we send to Congress. I urge you to contact your representative and senators today to voice your concerns. The bipartisan effort to fix this problem is commendable.

At the state level, MCEP continues to lobby for passage of legislation to make assault on health care providers in the hospital a felony. There is resistance from some legislators who believe that legislation is not needed and that violence “goes with the territory.” Please continue to share your experiences with us so that we can use them and be ready to make a call to Lansing when these bills are ready for a vote.

These are just a couple of examples of the work being done on your behalf. It’s been a hot July, but not a time to be asleep politically.

Thank you for this opportunity to serve. I encourage you to contact me with concerns or just to share your experiences. If I haven’t met you and we are crossing paths, please introduce yourself. Let me know how I can help. I am excited for my term to commence. §

### MCEP Calendar of Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 4, 2019</td>
<td>Board of Directors</td>
<td>Chapter Office, Lansing, Michigan</td>
</tr>
<tr>
<td>September 12-13, 2019</td>
<td>Observation Medicine Conference</td>
<td>Sheraton Hotel, Atlanta, Georgia</td>
</tr>
<tr>
<td>October 1, 2019</td>
<td>MCEP Councillor Meeting</td>
<td>Chapter Office, Lansing, Michigan</td>
</tr>
<tr>
<td>October 25-26, 2019</td>
<td>ACEP Council Meeting</td>
<td>ACEP Council Meeting, Denver, Colorado</td>
</tr>
<tr>
<td>October 27-30, 2019</td>
<td>ACEP Scientific Assembly</td>
<td>Denver, Colorado</td>
</tr>
<tr>
<td>November 4, 2019</td>
<td>LLSA Review Course</td>
<td>Chapter Office, Lansing, Michigan</td>
</tr>
<tr>
<td>November 19, 2019</td>
<td>$traight Talk</td>
<td>The Johnson Center, Howell, Michigan</td>
</tr>
<tr>
<td>December 4, 2019</td>
<td>Board of Directors</td>
<td>Chapter Office, Lansing, Michigan</td>
</tr>
</tbody>
</table>
FROM THE OUTGOING EDITOR

PASSING THE TORCH

Thank you for the opportunity to serve you as the MCEP News and Views Editor over the past 6 years. This has not only been a great way to give back to MCEP and my colleagues in Emergency Medicine, but it has also been an eye-opening personal experience that has been more than fulfilling.

Reflecting on the past 6 years, we have added an E-Newsletter that has been well accepted, boosting above average clicks and opens, and bringing us into the new generation of web-based reading. It has been so successful that we plan to adopt this medium as our primary newsletter in the near future. For those who like the paper newsletter, do not fret. It will not be replaced completely and you can ask the MCEP office to continue sending it if you prefer.

We have also decreased our newsletter frequency to 6 issues per year, allowing us to pack it with high yield and interesting articles throughout the year. From the responses we have had, this has also been well accepted. We have worked hard to bring you great content including the bimonthly legislative update, reimbursement column, and important information that is helpful in practice and for your career. This will be a continued emphasis moving forward. Finally, our video content, spearheaded by Dr. Rami Khoury and Dr. Nicholas Dyc have been incredibly successful and allow MCEP to provide a new voice to our members and beyond. I’m eager to see how this develops in the future.

Personally, my experience as editor has given me the confidence and excitement to continue writing, both on my blog and for publications outside of medicine. I never knew that writing would be such a passion for me until I began as editor. I thank Dr. Michael Baker for asking me if I would take on the editor position, giving me this opportunity and allowing it to develop in ways I never imagined.

Alas, it is time for me to pass the torch to two passionate physicians who will continue the MCEP News and Views legacy. I’m happy to announce Dr. Sara Chakel and Dr. Meghan Liroff as the new co-editors of the newsletter. They are both avid writers and passionate emergency medicine advocates. I’m excited to see their new and creative ideas as they navigate the next direction for the newsletter.

In closing, emergency medicine has changed considerably in my brief 10-year career, and it will continue to change in the future. From shifting reimbursement to new legislation, to scientific advances, we must always keep on our toes so that we’re ready to advocate for our patients and our specialty. One of my big dreams is for the house of medicine to come together, pool our money and resources, and fight for policies that benefit the patients we trained to serve. Imagine the power of this unity throughout all specialties. It is through patient-centered innovation that we can reclaim our profession to improve not only the lives of those we treat, but also the lives of healthcare professionals throughout our state and our country. One of the most important lessons I have learned is that we must get involved. If we are silent, nothing changes, but when we combine our voices and speak up to the inequities in our healthcare system, we can be heard. Even if we create one small change at a time, at least we are doing something. Being a physician is a responsibility, a call to action, and we all have to answer that call to make sure the next generation reaps the benefits.

Thank you for a wonderful 6 years as editor. I will remain on the MCEP Board of Directors and I look forward to continuing to serve you in the future. §

Gregory Gafni-Pappas, DO, FACEP

MCEP Studios

Est. 2018

TRAIGHT TALK

The Johnson Center
Howell, MI

November 19, 2019

This course presents valuable information and updates for emergency physicians, billing and coding professionals, and group managers. Two tracks are offered: Advanced Professional Coding Track and Physician/Administrative. Lunch offers unstructured time to interact with peers and to share information about the dynamic reimbursement environment.
My name is Sara Chakel, and I am excited to be incoming co-editor for MCEP News & Views along with Meghan Liroff. Like Dr. Liroff, I am a native Michigander, and I completed my medical education and residency in the state as well. However, after residency, I did take a several year hiatus to work locum tenens internationally in Australia, in the Caribbean, and out of state. I returned to Michigan several years ago, when I joined the staff of St. Mary Mercy Hospital in Livonia.

I became involved in MCEP several years ago through the Leadership Development Program, and I have remained an active member of the college with a particular interest in legislative affairs. I am a current member of the Board of Directors as well as an incoming Councillor who will be representing the college at the ACEP Council Meeting in Denver this fall. I look forward to working with Dr. Liroff to continue the tradition of thoughtful discourse in News & Views. I would also like to thank Dr. Gafni-Pappas for his years of service as immediate past editor.

In future issues, we hope to bring new voices to the newsletter, including periodic columns from guest editors. From a personal standpoint, I am interested in promoting physician well-being and in advocating for our membership at a state and national level.

With this in mind, I will take this first newsletter as co-editor as an opportunity to ask that all of you call or email your representative and two senators in Washington regarding legislation that will impact all emergency physicians. “Surprise billing” is a hot topic in Washington, and two solutions have been proposed and are currently winding their way through Congress. MCEP and ACEP support independent dispute resolution, also known as “baseball-style arbitration,” as the fairest solution for patients. However, the benchmark solution is anticipated to lead to substantial reduction in reimbursement and salaries while also reducing access to care for patients, especially in rural communities. More information and detailed talking points are available through the ACEP website and the ACEP 911 network, but our representatives in Washington need to hear from us regarding this incredibly important issue.

Thank you again for your continued interest in this newsletter, and I look forward to serving you.

My name is Meghan Liroff, and I’m an emergency physician at Henry Ford Hospital in Detroit. I’m home grown—I completed my undergrad, med-school, and residency in Michigan, and I plan to be here for the long haul.

Trying to find my stride in clinical practice, teaching, and advocacy, I started to write the narrative of my experiences as a doctor. I wrote about bearing witness to selfless love, coming to terms with my mistakes and my ego, fighting systemic injustice and racism, and assault in the emergency department, to name a few. I found that I loved the act of writing and was growing because of it.

Between the writing and the midnight shifts, I stumbled into MCEP’s Leadership Development Program, where I was exposed to good people and multiple avenues through which to protect our patients and our practice. As my interests in writing, medicine, and advocacy merge, I am thrilled to step into the position of co-editor along with Dr. Sara Chakel.

We hope to continue the excellent work of Dr. Greg-Gafni-Pappas who has served for six years as editor. Dr. Chakel and I have discussed the addition of special interest columns and contributors throughout the year, and we welcome your input.

Looking forward to the year ahead! 

---

October 1, 2019 will bring a few changes to ICD10 that may have an impact on the coding of emergency medicine claims. The final count of ICD10 codes will be 72,184 and include 273 additions, 21 deletions and 30 code revisions from the prior year.

For more information on the complete list of ICD10 updates, please find the following web link. https://www.cms.gov/Medicare/Coding/ICD10/2020-ICD-10-CM.html
SAVE THE DATE!
SHERATON ATLANTA HOTEL
SEPTEMBER 12 - 13, 2019

7TH ANNUAL
OBSERVATION
MEDICINE
- SCIENCE
AND SOLUTIONS
CONFERENCE

• HEAR FROM AND NETWORK WITH TOP OBSERVATION MEDICINE PHYSICIAN LEADERS AND AUTHORS, ADVANCED PRACTICE PROVIDERS AND NURSES
• NEW THIS YEAR! OPTION TO TOUR STATE-OF-THE-ART OBSERVATION UNITS IN A COMMUNITY OR UNIVERSITY HOSPITAL SETTING
• LEARN HOW TO MAKE THE CASE THAT YOUR HOSPITAL NEEDS AN OBSERVATION UNIT
• FEATURING 2 TRACKS - BEGINNERS: STARTING AN OBSERVATION UNIT AND ADVANCED: OPTIMIZING AND GROWING YOUR OBSERVATION UNIT
• LEARN HOW TO DESIGN, APPROPRIATELY STAFF AND SUCCESSFULLY MANAGE AN OBSERVATION UNIT USING EVIDENCE-BASED BEST PRACTICE
• DISCOVER HOW TO DOCUMENT AND MAXIMIZE REIMBURSEMENT FOR OBSERVATION SERVICES
• BACK THIS YEAR! INNOVATIONS AND RESEARCH IN OBSERVATION MEDICINE
LEGISLATIVE SUMMER RECESS AND FALL SCHEDULE

After a spring focused on Auto No Fault, the Governor’s, “Fix Our Damn Roads,” proposal, and limited action on the state budget, the Michigan Legislature is in recess until late August, if not until after Labor Day. Session days are scheduled each week, but until a deal is ironed out with the Governor on the roads package, sessions will be cancelled. We expect a very hectic September session as the Legislature and Governor race to enact a budget prior to the state’s October 1 fiscal year start. After those issues are settled, we expect a long fall session dealing with a few of the issues mentioned below.

VIOLENCE IN THE EMERGENCY DEPARTMENT

MCEP continues to work with legislators in both chambers to put in place tougher penalties for individuals assaulting health care workers in the hospital setting. We are pleased to support legislation introduced in the Senate by Senator Ken Horn (R-Frankenmuth), Senate Bill 80, and House Bills 4328 and 4329, introduced by Representative Hank Vaupel (R-Handy Twp). The House bills were referred to House Judiciary and had a hearing in the Spring. We are working on in-district meetings with committee members this summer to help move the issue along. Watch for an Action Alert from MCEP and contact your state representative.

SURPRISE BILLING LEGISLATION

Legislation has been introduced by Representatives Roger Hauck (R-Mt. Pleasant) and Frank Liberati (D-Allen Park) to curb the practice of “surprise billing”. MCEP is opposed to the legislation as introduced, but we are working with them as this issue unfolds nationally. ACEP has a lot of great issue papers on this topic, and we are working with the group to make some of those Michigan-specific. MCEP is also working with the Michigan State Medical Society and the Michigan Health and Hospital Association on an alternative package to address this issue. Legislation at the federal level is focused on in-network reimbursement and arbitration as a solution.
SUMMER ASSEMBLY UPDATE

46th MICHIGAN EM ASSEMBLY

The 46th Michigan College of Emergency Physicians was held at the beautiful Grand Hotel on Mackinac Island on July 28-31, 2019. Over one hundred physicians and other emergency medicine specialists and their families participated in three days of excellent educational programs and family fun.

The conference started Sunday afternoon with an Oncologic Emergencies in the ED Symposium. The MCEP traditional Opening Reception took place on the Front Porch with a breathtaking view of the Mackinaw Straights. Adults enjoyed cocktails and hors d’oeuvres, while children took pleasure in their very own reception with crafts and treats.

Monday, July 29th kicked off the educational segment of the Assembly with our exceptional speaker lineup. The Annual Membership Meeting followed with elections that were held for the 2019-2020 MCEP Board of Directors. Congratulations to the newly-elected Board members: Abigail Brackney, MD, FACEP, Pamela Coffey, MD, FACEP, Michael Gratson, MD, FACEP, and Diana Nordlund, DO, JD, FACEP. Congratulations are also in order for Ryan Powell, DO who was appointed on the Board as the new candidate representative. Dr. Khoury gave his outgoing Presidential address and was presented with his presidential jacket along with handing over the gavel to MCEP’s new President, Warren Lanphere, MD, FACEP.

Immediately following the Annual Meeting was the first 2019-2020 Board of Director’s meeting. The elected officers for the 2019-2020 Executive Committee positions were:

President: Warren Lanphere, MD, FACEP
President-Elect: Nicholas Dyc, MD, FACEP
Treasurer: Gregory Gafni-Pappas, DO, FACEP
Secretary: Diana Nordlund, DO, JD, FACEP

The annual fundraiser for MEDPAC was once again a success. This year we changed it up a little bit with an ice cream social along with a water balloon activity for physicians, families, and exhibitors to show off their fun sides. The winning team this year was Dr. Charmaine Gregory and her family.

The Gregory L. Henry, MD, FACEP Lecture featured David Talon, MD, FACEP, speaking on the topic of “Will Surgeons Lose the Appendix to Emergency Physicians?” The Presidents’ Banquet followed where MCEP was honored by the presence of eighteen (18) Past MCEP Presidents. Annual awards were presented to the following:

David Overton, MD, FACEP – John A. Rupke, MD, Lifetime Achievement Award
Charmaine Gregory, MD, FACEP – Emergency Physician of the Year Award
Larisa Traill, MD, FACEP – Ronald L. Krome, MD, Meritorious Service Award

Thank you to the following vendors who, without their support, we would not be able to provide this top-notch conference to our members:

SILVER SPONSORS

Brault
d2i
Michigan State Medical Society
Portola Pharmaceuticals
Zotec Partners

Thank you also to the Following Exhibitors:

Abbivie
AcelRx Pharmaceuticals, Inc.
Aegis Malpractice Solutions
Alexion Pharmaceuticals
Allergan
Appris Health
BMS/Pfizer
Brainscope
Cepheid
Fisher & Paykel Healthcare
Genentech
Gryphon Healthcare
Hantz Financial Services
HIV Consult Program
Janssen
Logix Health
Mallinckrodt Pharmaceuticals
Meduit
Melinta Therapeutics
Nordlund/Hulverson, PLLC
Novartis Pharmaceuticals
Paratek Pharmaceuticals
R1 RCM (formerly Intermedix)
Sanofi-Genzyme
Shift Administrators
Sycamore Physician Contracting
Team Health
Vapotherm
Z- Media, LLC (QuikClot)
Zoll

The last weekend in July next year, July 26-29, 2020, the College will return to the Grand Hotel on Mackinac Island for the 47th Annual Michigan Emergency Medicine Assembly. This event will once again continue to provide up-to-date information on issues, topics, and techniques that will help emergency physicians strengthen their practice along with fun activities for the whole family.
2019 Scientific Assembly

Opening Reception
President, Warren Lanphear, MD, FACEP, presenting his Inaugural address.

Dr. Warren Lanphear presents outgoing president, Dr. Rami Khoury, with the gavel award for his service of the chapter.

Executive Director, Belinda Chandler, CAE, presenting Dr. Rami Khoury with his President’s Jacket.
MEDPAC Family Fun Event

MCEP Board Members participate in a sack race at the MEDPAC Family Fun Event.

Michigan Emergency Medicine Foundation Annual Golf Tournament

2019 MEMF Annual Golf Tournament 1st Place Winners!
President’s Banquet

MCEP was honored by the presence of 18 Past MCEP Presidents.

Dr. Larisa Traill (left) receives this year’s Ronald L. Krome, MD Meritorious Award from Dr. Kathleen Cowling on behalf of Dr. Melissa Barton.

Dr. Charmaine Gregory (right) receives this year’s Emergency Physician of the Year Award from Dr. Sara Chakel.

Dr. David Overton (left) receives this year’s John A. Rupke, MD Lifetime Achievement Award from Dr. Bradford L. Walters.
SEVERE BABESIA IN THE EMERGENCY DEPARTMENT: A CASE REPORT

Benjamin Duncan, MD, Robert Shaffer, MD, Hackenson, David, MD.
University of Michigan Department of Emergency Medicine, Ann Arbor, Michigan 48105

ABSTRACT:
We present a case involving the initial diagnosis and management of a patient with severe babesiosis infection. The patient had several complications resulting from both her medical comorbidities and babesia infection including acute renal failure, severe hemolysis and sepsis. Appropriate initial management in the ED can help facilitate timely inpatient interventions and ultimately clinical outcome.

INTRODUCTION:
For emergency medicine physicians, babesiosis is a relatively rare occurrence and a diagnosis within the emergency department is rarely made. Identifying this parasitemia involves a high index of suspicion and performing a peripheral blood smear interpreted by a pathologist for confirmation. The severity of infection can range from subclinical to severe with immunocompromised hosts being most at risk for severe infection. This case likely represents the first diagnosed case of babesiosis contracted in the lower peninsula of Michigan.

CASE REPORT:
A 60 year old caucasian female with a history of hereditary spherocytosis status post splenectomy, colon and pancreatic cancer in remission presented to the emergency department with complaints of flu-like symptoms. The patient reportedly had been feeling poorly for five days with additional complaints of increasing fatigue and nausea. The patient initially presented to an outside emergency department where she was found to be jaundiced, tachycardic, and confused. Initial labs revealed a leukocytosis of 20,000, hemoglobin of 8.5, creatinine of 5.0, LDH 7000 and total bilirubin 9.0. She was found to be anuric in the emergency department. Review of peripheral blood smear revealed parasites concerning for babesia infection. Due to a need for a higher level of care, the patient was transferred to our emergency department. The patient history was limited at the time of presentation due to the acuity of her condition, but was later discovered that the patient had no reported history of tick bites or travel to endemic regions. Vital signs on presentation included temperature 36.6 C, heart rate 102, blood pressure 140/85, respiratory rate 18 and SpO2 96% on room air. She was lethargic, but awakened and responded slowly to questioning. The patient exhibited mild jaundice. Her cardiovascular exam was normal except for tachycardia and abdominal examination was unremarkable.

With a working diagnosis of babesiosis, laboratory studies including markers of hemolysis and peripheral blood smear were ordered. Laboratory studies were significant for a total WBC count of 22.2 k/uL, HGB 7.7 g/dL, creatinine 5.12 mg/dL, AST 240 IU/L, ALT 43 IU/L, total bilirubin 6.6 mg/dL, haptoglobin <10 mg/dL, LDH 2894 IU/L, pH 7.23, HCO3 15 mmol/L, ammonia 142 umol/L.

Given the concern for babesia infection, infectious disease and pathology were consulted in the emergency department. The patient was given clindamycin at the outside facility, and to complete initial appropriate treatment of babesiosis, she was also given quinine. Initial blood smear showed 25-30% parasitemia, consistent with severe disease. With severe disease, the patient required exchange transfusion for management of the parasitemia and CRRT for management of acute renal failure most likely secondary to acute tubular necrosis (ATN) due to hemoglobinuria. The patient was transferred to our emergency critical care center for continued resuscitation and facilitation of exchange transfusion and dialysis. The patient’s peripheral blood smears showing the characteristic “Maltese cross” formation of the intra-erythrocyte parasite can be seen in the figures below.

The patient was ultimately transferred to the inpatient ICU where she underwent additional sessions of CRRT. The patient’s course was complicated by the development of acute upper extremity DVT, prolonged QT which required the initiation of atovaquone in favor of quinine, NSTEMI type II demand ischemia secondary to sepsis, development of ventilator-associated pneumonia and ARDS. Ultimately, she was successfully treated of babesiosis with atovaquone, clindamycin for a total of about four weeks of treatment. She subsequently had multiple peripheral smears which were negative for parasitemia.
DISCUSSION:
Babesiosis is a tick-borne disease that is increasing in incidence in the United States and worldwide. Babesiosis is caused by intraerythrocytic protozoan parasites (typically \textit{babesia microti}) which are most commonly transmitted through the bite of an infected \textit{Ixodes} tick. It follows the distribution found of that of Lyme disease, which is carried by the same vector. Humans serve as an incidental and terminal host. The primary reservoir for babesia is the white-footed mouse, which is endemic to the northeastern and upper midwestern United States.

In the emergency department, babesiosis is a rarely encountered condition and the diagnosis is not often made until the inpatient setting and requires a high index of suspicion. The initial presentation is fairly nonspecific and can range from a mild acute illness to a fulminant illness resulting in death. Patients typically start to exhibit signs and symptoms of babesiosis after a 1-4 week incubation period. Patients typically can exhibit malaise, fatigue, fever, chills, myalgias, nonproductive cough and arthralgias.

Interestingly, the patient described in the case above would be documented as the first person to contract babesiosis in the lower peninsula of Michigan. Specifically, she was found to have \textit{babesia divergens}, which is a rare cause of babesiosis in the United States.

Important points of management in a patient with newly diagnosed babesiosis includes antibiotic therapy with clindamycin and quinine. Patients are at increased risk of more severe infection if they are immunocompromised and history of splenectomy. Our patient had a past medical history of hereditary spherocytosis status post splenectomy which may have been an explanation for her severe presentation. A more severe presentation is also characteristic of babesia divergens, which reportedly has up to a 42% mortality rate. Especially with babesia divergens, it is thought that timely initiation of exchange transfusion before significant hemoglobinuria can help prevent renal and multi-organ failure.

Other considerations in the acute management of babesiosis is long QT. Quinine can prolong the QT and a screening ECG is necessary, as an alternative agent such as atovaquone is preferred in these cases. Ultimately, the patient will likely require ICU admission with infectious disease, pathology and additional subspeciality input and follow up.

REFERENCES:
A 54-year-old patient fell forward onto the outstretched hand (FOSH) and had a distal radius fracture with dorsal angulation as well as an ulnar styloid fracture (Colles’ fracture for those who like eponyms). The fracture was reduced, and a cast applied. Eight hours later the patient returns to the ED with increasing pain and paresthesias in the median nerve distribution of the same hand. What now?

There is an important problem lurking in the background here (or I wouldn’t bother bringing it up). The median nerve is irritated. Is that a reason to call ortho? Removing the cast may lose the reduction. Should you do that? What about compartment syndrome of the forearm? Isn’t that more up the forearm and not so much in the hand?

Everyone knows that the median nerve may be directly damaged (contused) by fractures of the distal radius. But it is important to remember that direct damage to the median nerve is usually part of the patient’s initial complaint. There is, in fact, why you check this for this kind of problem before performing a reduction. The treatment of a contusion of the median nerve is rest and observation. Most median nerve contusions will improve with time.

Median nerve symptoms that progress with time are another ‘animal’. When the symptoms are progressive the focus of concern shifts to acute carpal tunnel syndrome (ACTS). ACTS is a condition brought about by a process causing enough swelling or mass effect, to raise the pressure in the very rigid carpal tunnel. If the pressure rises beyond that of the capillary vessels that feed the median nerve passing through the canal, the median nerve will become symptomatic. ACTS is very much like compartment syndrome. The important difference is that there is no muscle in the carpal tunnel and the only at-risk structure is the median nerve. The symptoms of median nerve damage from ischemia are typically pain, dysesthesias, and paresthesias along the median nerve distribution in the hand. This is unlike nerve contusion which initially presents with nerve related symptoms. ACTS symptoms are usually delayed, progressive, and intensify with time.

There is a short repertoire of possible initial treatments for ACTS.

1) Some orthopedists advocate carpal tunnel pressure measurement to decide if surgery is necessary. This is almost certainly not an emergency physician procedure or responsibility.

2) Other orthopedists suggest a nonsurgical trial of strict elevation and observation in the ED. Elevating the arm of anyone with these symptoms to decrease swelling is certainly a good idea. In addition, the cast itself is often contributing to the rising carpal tunnel pressure by inhibiting tissue expansion. Eliminating the cast may reduce pressure, but removing the cast and elevating the arm may lose the reduction. Occasionally, the fracture fragments are displaced into the carpal tunnel and a re-reduction may mitigate the symptoms. In any event, discussion with the orthopedic surgeon seems prudent before removing the cast.

3) The most common (and usually recommended) treatment for ACTS is surgical release of the carpal tunnel by the orthopedic surgeon. Improvement in symptoms has been obtained after a substantial length of time, but there is a correlation between faster, more complete resolution of median nerve symptoms and early operation. Time matters.

So….that’s interesting…but….What about our patient?

1. Consider that the median nerve may have been damaged in the original injury. A progressively increasing symptom complex speaks against this. (With any luck the original chart will indicate no previous damage.)

2. Consider compartment syndrome of the forearm. Symptoms in our patient seem more hand-like and not in the forearm at all. This is very unlikely.

3. Settle on ACTS as the diagnosis. Elevate the arm while still in the cast. Call your friendly, neighborhood, orthopedic surgeon to discuss definitive care and probable surgery.

The bottom line:

ACTS causes median nerve symptoms in the hand. ACTS is progressive with time and swelling. The treatment for acute carpal tunnel syndrome is surgery. Get help from the orthopedist for your patient. Obtain the best results!

REFERENCES:

1) McDonald AP III, Lourie GM

   Complex surgical conditions of he hand: Avoiding the pitfalls

2) Schnetzler, KA

   Acute Carpal Tunnel Syndrome
There is an assumption that refinancing a student loan will lower the interest rate and save the borrower money. Is this always the case? Potentially...but there is more than just saving money to consider. Below are several important factors to consider before refinancing a loan.

**How much is the monthly payment?**

Federal loans offer many repayment choices including income based repayment (IBR) options, such as Pay As You Earn (PAYE) and Revised Pay As You Earn (REPAYE). They provide affordable payments during training years and beyond. The payments are based on income, family size, and state of residence. For example, a single resident with a $50,000 income would pay approximately $260 per month on REPAYE. The government website studentloans.gov provides an IBR loan calculator where borrowers can estimate payments for today as well as the future. The required payment will change based on income, dependents, and marital status. REPAYE incorporates the combined income and debt of both spouses into the payment calculation.

A refinanced loan has a fixed monthly payment that does not change. This allows for appropriate current and future budgeting. A cautionary note: Upon refinancing with a private lender, there may be a higher interest rate, but a significantly higher monthly payment that may cause stress on cash flow.

**How long is the repayment term?**

Along with flexible payment options, the government offers different repayment terms. The longest repayment term is 25 years. Key point: A borrower is not locked into a specific length of loan repayment. Refinanced loans are calculated using a set number of years. They range from a minimum of 3 years to a maximum of 20 years. There is no income calculation option. Shorter term loans have a more enticing interest rate but higher monthly payment. However, a more palatable monthly payment may result in a 15 or 20 year repayment term and higher interest rate.

**What subsidies are available on federal student loans?**

These helpful subsidies can be significant and disappear after a refinance. For example, REPAYE provides a subsidy on unpaid interest each month. A $200,000 federal direct loan at 6.8% interest will accrue approximately $13,600 of interest per year. That is over $1,100 each month! While a borrower is on the REPAYE program, the government will pay half of the unpaid interest each month on unsubsidized loans (or subsidized loans after the 3 year initial subsidy ends). This may be a significant contribution during low income periods. Using the $200,000 example from above: If a REPAYE payment is $260 per month, approximately $840 of interest would still accrue ($1,100 - $260). The government will pay $420 each month of the unpaid interest (half of the unpaid interest). If this subsidy is added-up over a 3 year residency, REPAYE saved the borrower over $15,000.

A cautionary note: Refinanced loans do not qualify for subsidies.

**Am I on track for loan forgiveness through PSLF or any other programs?**

Under the Public Service Loan Forgiveness (PSLF) program government, “direct” loan borrowers are potentially eligible for tax free loan forgiveness. The qualifying criteria are as follows:

- Work directly for a non-profit or government employer
- Be enrolled in a qualifying income based repayment plan
- Make 120 on time payments while working full time (more than 35 hours per week)

Emergency medicine physicians are often offered multiple options when setting up their employment structure. W2 wage earners working directly for a non-profit employer likely meet the PSLF employment requirement. Working as a contractor or 1099 employee likely does not qualify as working directly for a non-profit or government institution. Visit studentloans.gov for further details.

The NIH as well as certain States may also offer student loan repayment or forgiveness programs. While the programs may take effort to locate, this may be a fruitful search for each borrower before committing to a refinance. Cautionary note: Upon a refinance, there is a strong likelihood the borrower will lose eligibility for PSLF and other forgiveness options.

**How is the interest rate calculated on government loans?**

Understand the true interest rate on government loans before refinancing! Interest on government student loans does not capitalize while in IBR repayment plans. The loan accrues interest on the principal (the original loan amount) but does not accrue interest on the interest. Upon refinancing, the principal and non-capitalized interest will be made into one new loan. Naturally, interest will be charged on the entire amount. For example, consider $190,000 of federal loans at 6.8% paid through PAYE for 3 years. The loan statement shows a principal balance of $190,000 and an interest balance of $39,000. In this example, interest is being charged at 6.8% on the $190,000. No interest is being charged on the $39,000 of accrued interest. Upon refinancing, the loan principal is now $229,000 and interest is charged on the entire balance. Since interest is only accruing on the principal portion of a government loan, the “true” interest rate charged on the federal loans in this example is 5.6%. For comparison to a refinance, the rate needs to be lower than 5.6%, not 6.8%. After all accrued interest on a government loan is paid off a direct comparison can be made between interest rates.

**What is your credit score?**

When refinancing student loans, borrowers will receive different interest rates based on their credit scores. The lower rates are reserved for borrowers with higher credit scores; meaning those with credit scores of 750 and above. The minimum required credit score to qualify for a refinance is typically around 650. If a borrower has a credit score on the low end, they may want to consider making some changes in their credit profile first - check the credit report for discrepancies, make payments on-time, pay down credit card debt, etc. Visit experian.com to review additional ways to improve credit scores.

Refinancing student loans can be a profitable option, but it should never be taken lightly. Each borrower’s situation is unique, and given the significant amount of debt in the medical community, conducting your own research is well worth the effort. Start by understanding the benefits of your federal loans, and build outward incorporating employment options, cash flow, and interest rates.
Executive Committee
Warren Lanphear, MD, FACEP — President
president@mcep.org

Nicholas Dyc, MD, FACEP — President-Elect

Gregory Gafni-Pappas, DO, FACEP — Treasurer

Diana Nordlund, DO, JD, FACEP — Secretary

Rami Khoury, MD, FACEP — Immediate Past President

Co-Editor
Sara Chakel, MD, FACEP
mcep@mcep.org

Co-Editor
Meghan G. Liroff, MD
mcep@mcep.org

Executive Director
Belinda Chandler, CAE
bchandler@mcep.org

Michigan Emergency Medicine News & Views is the official publication of the Michigan College of Emergency Physicians. Deadline for publication of all letters/articles is the 5th of the month prior. All correspondence should be addressed to MCEP News & Views, 6647 West St. Joseph Hwy., Lansing, MI 48917. Telephone (517) 327-5700, FAX (517) 327-7530, www.mcep.org. Opinions expressed within this newsletter do not necessarily reflect the College’s point of view. While News & Views believes that the ads it accepts originate from reputable sources, it takes no responsibility for the consequences resulting from, or the responses generated by, any commercial or classified advertisement.

healthy vitals

ProAssurance has been monitoring risk and protecting healthcare industry professionals for more than 40 years, with key specialists on duty to diagnose complex risk exposures.

Work with a team that understands the importance of delivering flexible healthcare professional liability solutions.

Proudly Endorsed by

ProAssurance
Treated Fairly

Healthcare Professional Liability Insurance & Risk Resource Services

When you are treated fairly you are confident in your coverage • 800.282.6242 • ProAssurance.com