Bulletin *Summer 2017*

The Pennsylvania Radiological Society

A Chapter of the American College of Radiology

www.paradsoc.org

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http://www.paradsoc.org/

MESSAGE FROM THE PRESIDENT:

I would first like to thank the executive committee, board, committee chairs, and our executive director John Kline for all that you have done since our last fall meeting in September. I will briefly outline what we have accomplished since then.

My main focus this year was communication. To that end, the Communication and Member Engagement committee was formed, which has met 3 times this year via conference call. A Facebook group has been started by Dr. Sonia Gupta, https://www.facebook.com/groups/211790602586294/, and I encourage all our members to join. We have also just started a new twitter page, https://twitter.com/PAradsociety and are hoping to get everyone more engaged moving forward.

A great deal of work has been done in our legislative section, including 2 resident mentoring days in Harrisburg; visits to fundraisers for House Majority leader David Reed and House Majority Whip Bryan Cutler by Dr. Rich Marhaj, Dr. Keith Haidet, John Kline, and myself; and work with the PAMED's Specialty Leadership Cabinet on Balance Billing legislation by Drs. Terry York and Josh Tice. As usual, we have a large contingency who organized and made Capitol Hill visits on Wednesday, May 24, coordinated by Drs. Scanlon and Sykes.

Under the leadership of Dr. Mary Scanlon, our resident and fellows section has done incredible work including events in both Philadelphia and Pittsburgh, legislative days in Harrisburg, RLI, and resident representatives at ACR 2017. In addition, we have a record 18 members in training who signed up and attended the ACR/RFS portion of ACR 2017!

This year we had an extraordinary seven radiologists who became fellows of the ACR at the convocation ceremony. I would like to extend my personal congratulations to Drs. Hakim, Kasales, Lexa, Schwartz, Scuderi, Torigian, and Walker. Thank you to Dr. Bohm-Velez for all the work of the fellowship committee.

Our vendor support committee has been revitalized under the leadership of Dr. Michael Goldberg, and we are making great strides in getting support from multiple vendors for our fall meeting. If anyone has any interest in joining this committee, please let me know.

Our fall meeting agenda has been nearly finalized by Dr. Beverly Hershey, and I am looking forward to an outstanding educational day. The 103rd annual meeting will again be held at the Hyatt at the Bellevue on September 8-9, 2017. I am pleased to announce that Dr. William Herring will be our honored radiologist, and Dr. Mindy Horrow will be speaking in his honor at the dinner that evening.

Following discussion at our last meeting, we have engaged the ACR to handle our membership billing and collections and have found this program to be very successful for member retention.

I would like to thank Dr. Terry York for his work as senior councilor. I would also like to personally thank all of the councilors and elevated alternate councilors. We have a great group representing Pennsylvania at ACR 2017.

In summary, we have started the ball rolling on a number of great initiatives. My goal for the remainder of the year is to continue moving forward in all of these areas, especially with our social media. I would like to thank all of our active members for your time and commitment to the society and I look forward to continuing to work together.

Julie A. Gubernick, MD, FACR
Philadelphia

EDITOR'S NOTE

This Summer 2017 issue of the Bulletin will highlight content from ACR 2017 held in Washington, DC in May. Several of our alternate councilors graciously agreed to attend and summarize a few of the key presentations. In addition, this issue will provide a brief update from a few of the Society's active committees and sections.

As the Bulletin continues to evolve, I welcome your ideas and suggestions for future topics. I hope you enjoy this Summer issue of the PRS Bulletin.

Joshua G. Tice, MD
West Reading

Legislative Updates

Balance Billing

Since our last Bulletin balance bill legislation has been introduced into both the PA Senate (SB 678) and the House (HB 1553). As written the legislation focuses on eliminating balance billing without addressing network adequacy. The proposed legislation places the onus on providers and insurers to negotiate payment for out-of-network patients and establishes an arbitration system to settle disputes. Unfortunately, the proposed legislation places a significant burden on providers and will likely further shift the balance of power to the insurers.

Dr. Terry York and I have continued to work with a coalition of "hospital-based" specialties (Emergency Medicine, Anesthesia, and Pathology) as well as several other specialties (Orthopedics, and Pediatrics) to discuss and establish common areas of concern with the proposed legislation. In fact, each specialty collaborated in crafting coordinated formal comments and letters for the respective congressional committees. Further, the coalition intends to continue dialogue between the specialties, work with PAMED through the Specialty Leadership Cabinet, and escalate efforts to improve the legislation as needed.

Prior Authorization

PA State Representative Marguerite Quinn (R-Bucks) has recently introduced legislation (HB 1293), which seeks to improve transparency, standardization, and response times for prior authorization within Pennsylvania. The legislation will set a standard definition improving transparency, accessibility, and consistent application. Likewise, the authorization process will be streamlined by requiring insurers to make a standardized electronic process available. This legislation is a potential success following efforts from members of the PRS legislative committee on prior iterations of this bill. The current proposed legislation has the support of the PRS Legislative Committee and PAMED. Please be on the lookout for a call to action from PRS and/or PAMED.

Joshua G. Tice, MD
West Reading

ACR 2017: Highlights

Keynote Address

The Keynote Address for the ACR 2017 annual meeting utilized a different format this year. Instead of a traditional speech, we were treated to a question and answer style conversation between the current President of the ACR, Dr. James Brink, and the current CEO/chairman of General Electric, Jeffrey Immelt. A variety of topics were covered, including many issues facing radiology today, and the healthcare industry in general.

Instead of providing a transcript of the conversation, I would like to present a recap of the themes that Mr. Immelt discussed. To begin, he described how he envisioned the "new GE," as a company that is narrower in focus and deeper in expertise than it had been previously. The company is focusing on competing in four primary areas: Energy, Healthcare, Transportation, and Resources. He wants to have a technological edge in every space they are competing in, but does not want to be primarily a software company. When specifically asked about the merging of technology with the healthcare industry, he stressed customization as a key factor in properly leveraging technology for individual users and/or purposes.

In that vein, the discussion turned to Artificial Intelligence (AI). When asked whether AI should be considered a threat or an enabler, Mr. Immelt honestly stated he didn't really know. However, he felt the best way to think about AI was as a tool that will be capable of making everyone in the room better at their job. His advice was to find a problem that you could use AI to solve, and then see what you learn through that process. If you can harness the new tool to solve the problem that you face, then you can become the "owner" of the tool, it will make you better at your job, and create value for you and your patients.

For the future of radiology, Mr. Immelt stated that there are 4 areas of immediate importance: study of the brain, data science, personalized medicine, and portability of diagnostic equipment to be used in remote parts of the world. According to Immelt, using data science and analytics could help radiologists provide more personalized medicine for our patients. Ideally, using analytic tools would be most beneficial if we can get it to the "front lines," where people doing everyday work can use the data to customize the care they provide.

When discussing what we can learn from other industries outside of healthcare, Mr. Immelt stressed variance reduction in work processes. These ideas have been used to great effect in other industries and can be applied to the healthcare system to improve outcomes, particularly when scaled up to the level of population health initiatives. He also touched on how his company has embraced globalization, currently deriving 70% of its revenue from outside the USA. He stated that while he doubts a significant change in the business model of our current healthcare system is coming, he does think there are opportunities to learn from the approaches that other countries are using to

solve their problems. Furthermore, he stressed that "fixing healthcare" is not a once and done proposition, and will likely be an endless process with small steps taken along the way.

Finally, asked what made effective leadership in tough times, Mr. Immelt stated that flexibility and resiliency are paramount. Technological and geopolitical changes are relentless, so the effective leader must be flexible and able to meet ever-changing challenges and opportunities. He quoted Mike Tyson: "Everyone has a great strategy, until they get punched in the face." To lead through challenges, a great leader needs to be able adjust their strategy to effectively surmount them.

Matthew Brown, MD
Allentown

Moreton Lecture

Dr. Jeffrey Bauer delivered the 2017 annual Moreton Lecture, *Forecasting the Futures of Radiology: It's all Downhill from Here on Up,* on May 23rd at 8AM. Dr. Bauer is an internationally recognized health futurist with a PhD in medical economics. In his 48-year career, he has been a Fulbright Scholar, Kellogg Foundation National Fellow, professor at two medical schools, health policy adviser to the Governor of Colorado, and vice president for health forecasting and strategy for two Fortune 500 companies. He also reflected several times on his prior experiences as a weatherman.

Dr. Bauer spoke on the conceptual differences and significant strategic implications of foretelling the future by means of predicting (extrapolating change from historical trends) versus forecasting (assessing the probabilities of possibilities), and discussed why we should forecast rather than predict. Prediction is a specific estimate of an expected value of a key variable at a future point in time. The problem with predicting is the future is unpredictable in dynamic systems (the rules of the future will differ from the rules of today), like the rapidly changing medical marketplace. Radiologists will be better prepared for an unpredictable future though the use of forecasting. A forecast is an estimate of the probabilities of possibilities for a key variable at a future point in time. When interpreting a forecast, you must allow for the possibility of unexpected outcomes and reduce the level of confidence as the length of the forecast period increases. When explaining forecasting, Dr. Bauer discussed his prior experience as a weatherman to explain what is meant by a 30% chance of rain. You evaluate the variables (humidity, temperature, pressure, wind) on a day at 6:30AM. Then you go to the extensive weather database and evaluate 100 previous days that began the same way and see what eventually happened at noon. If 30 of those days resulted in rain, then there is a 30% chance of rain. He offered us two forecasts for the future of health care. His 5-year forecast for medical spending as a percentage of GDP was a 10% chance of growth, a 50% chance of stagnation (spending remains at 17% GDP), and a 40% chance of decline in health care spending. His 5-year forecast for medical enterprises suggested 25% of organizations will cease to exist as organized, 40% will continue as organized, but precariously, and 35% will thrive by fixing the way care is delivered.

Dr. Bauer offered several reasons why increased spending in healthcare is unlikely. First, the government and private employers have reached the limit of their ability and willingness to cover

additional health care costs. Second, payers now expect providers to share cost risk and be accountable for providing care that consistently improves population health. Third, patients will seek lower costs and better quality as they are responsible for an increasing share of their health care costs. Finally, patients will not have disposable income to meet all obligations, forcing providers to change servicing and pricing.

Eliminating care that patients do not need and cannot afford will be a key to survival in the coming no-growth market. The "one-size-fits-all" clinical paradigm will be replaced by precision medicine in an approach that is personalized, predictive and preventative. Population health will be enhanced by managing disease to prevent the need for acute care. The best care models will consist of care provided by patient centered care teams of physicians (including radiologists), nurses, pharmacists, and therapists.

Dr. Bauer commended the ACR for the forecasting presented in the previous day's Economics Forum and for the concepts encompassed by Imaging 3.0. He believes we as a specialty are better prepared for the coming changes than most other medical specialties. As a suggestion for Imaging 4.0, he proposed radiology take the lead by developing "Diagnostic Convergence". This would be an evidence based decision support system that will recommend the best diagnostic test. This new system would eliminate overlap between radiology, pathology and other labs (cath lab, GI lab) to identify the most cost-effective test to optimize population health at the lowest cost.

He concluded with a study by Don Berwick presented in JAMA evaluating waste as a percent of total health care spending. The best organizations demonstrated 20% wasteful spending. The average system demonstrated 34% waste and poor organizations have waste as high as 47%. All health care enterprises must eliminate waste and adopt better ways of doing business with performance improvement tools (Lean, Six Sigma) that ensure care is delivered correctly all the time, and as inexpensively as possible.

Eric A. Walker, MD, MHA, FACR
Hershey

Economic Forum: Keynote Address

We were fortunate to have Keith Dryer, DO, PhD, FACR, FSIIM, deliver the keynote speech in the Economic Forum sessions at the ACR Annual Meeting this past May. Dr. Dryer is the Vice Chairman of Radiology and Director of the Center for Clinical Science at Massachusetts General Hospital and Associate Professor of Radiology at the Harvard Medical School. He has published extensively in clinical data science, cognitive computing, clinical decision support, clinical language understudying, digital imaging standards, and implications of technology on the quality of healthcare and payment reform initiatives. With his expertise spread over such diverse arenas, it is quite telling that the ACR asked him to speak specifically on artificial intelligence (AI).

The theme of the talk was not spent debating whether artificial intelligence is a possibility in the future. In fact, in non-healthcare applications, AI is already here as evidenced by its use in

mainstream products such as the iPhone. Just as Jeff Immelt, CEO of GE, discussed during his keynote address, Dr. Dryer was clear that AI will one day arrive and be part of the landscape of healthcare. His talk instead centered on the role that AI could play vis-à-vis the radiologist. His vision of the future includes AI supporting the radiologist, and in that respect AI represents an exciting tool. However, it is important that radiologists play a leading role in determining how AI will be applied from both a functional and economic standpoint. The ACR recognizes the importance of the change that AI will bring, and has created the Data Science Institute, specifically formed to address these issues.

Dr. Dryer emphasized the importance of radiologists taking charge of these coming changes when he showed a video of an interview of Geoff Hinton, one of the fathers of deep learning. In this video, Dr. Hinton states that we should stop training radiologists now, as he believes in five years deep learning will be better than radiologists. Of course, Dr. Dryer does not agree with Dr. Hinton's assessment, as he believes AI by itself is only one piece of the puzzle in the successful delivery of radiologic information, and for that matter all of healthcare in general.

While AI brings to the table the ability to process large amounts of data into sophisticated algorithms, there are two other important factors that are required for successful AI integration into healthcare. One factor is the input of healthcare professionals such as the radiologist who understands the practice of radiology and its role in the larger context of healthcare delivery. Without this, Dr. Dryer argues that artificial intelligence does not have the context in which to be useful. The second factor is the commercialization of AI specific to imaging, which again would need the input of the radiologist to be successful.

An often-overlooked aspect of AI in radiology is the myriad of possible applications. AI is typically thought of in terms of its ability to identify pathology and make diagnoses. However, it can be used in almost every step of the delivery of diagnostic imaging. This begins with the initial order, in which AI can make intelligent decisions for the best study for a patient given the patient's history. In this respect, radiology clinical decision support can be thought of as AI version 1.0. The study itself can also benefit from AI in that it can protocol a tailored study specific to a patient and a given clinical scenario. Similarly, AI can incorporate information and data from the EMR resulting in a report that is specifically tailored to the patient and the clinical scenario.

The implementation of AI despite its potential benefits raises many issues including ethical, legal, regulatory, and economic considerations. It is because of these complex issues that more than ever, the central role of the radiologist in diagnostic imaging is of paramount importance. We must embrace the arrival of AI to ensure that its implementation will maximize benefits to society, and this can only occur under the guidance of radiologists.

Ryan K. Lee, MD, MBA
Philadelphia

Quality and Patient Safety Committee Report

The Quality & Safety Committee is continuing its collaboration with the Pennsylvania Patient Safety Authority and the HIIN (Hospital Improvement Innovation Network) Project.

This project is a CMS funded program, and the focus is on errors between the Emergency Department and Radiology.

Participating in the project are several practices with PRS members, including Penn State/Hershey Medical Center. The PRS Bulletin will keep you posted with results in future issues. It is hoped that this HIIN Project may lead to a statewide quality improvement project with the PRS and interested member practices.

The Q & S Committee is also pleased to announce that they are working with Dr. Hershey for the 2017 Annual Meeting CME Program, and have facilitated a presentation with the PA Patient Safety Authority (PSA). The PSA will present data from their database on the thousands of errors, which have been reported in Diagnostic Imaging in the years since state-mandated reporting. This will include, as an example, the many errors encountered with preliminary misreads by ER staff with subsequent communication failures by radiology indicating that there has been a misread. Don't miss their interesting presentation on September 9th.

Bob Pyatt, MD, FACR
Chair, General, Small, Emergency, and/or Rural Practice Commission
Board of Chancellors, ACR
Chambersburg

RESIDENT AND FELLOW SECTION:

Radiology and Legislation

If you want to make change in politics, you need to play the game. I was reticent to engage in politics but understand that it is required to make change in this country. With that in mind, I volunteered to get involved through the Pennsylvania Radiological Society (PRS). Each year John Kline, PRS Executive Director and professional lobbyist, introduces several interested residents to a day in the life of a lobbyist and gives them a glimpse of how local politics operate in PA.

My initial assumption of lobbying was simply talking with seedy politicians and exchanging tokens of gratitude to sway politics one way or the other. I was surprised at the varied occupations and backgrounds of our politicians, which often gives them neither personal experience nor a detailed

understanding of the many complex issues facing the legislature, such as healthcare. However, they must make decisions that affect the lives of millions on these issues. This is where guidance from those with more experience comes into play through lobbying. Further, a lobbyist demonstrates value as an intermediary between the experts and the politician.

Thanks to the PRS, as one of their student representatives, I was able to attend the American College of Radiology's (ACR) annual meeting in Washington, DC. I enlisted to discuss radiology issues with members of Congress during a sponsored ACR event, Capitol Hill Day. It was quite a different feeling to go from the observer to a participant in politics for a day. The topics of interest that were discussed involved preventative care measures, something near and dear to me. I met with several legislative aides and politicians throughout the day and they seemed receptive to advice and information on these issues. It was a stimulating experience to engage with these people and I hope it leads to a positive difference in the legislation to come.

It is easy to sit on the sidelines and complain about the mistakes and problems in politics, especially about the current state of healthcare. It is significantly harder to get involved, but I think the rewards are infinitely more satisfying. Getting involved is the only way to make change a reality. Politicians typically do not know the issues involved with healthcare as in-depth as we do and need all the help they can get. I do not relish playing the political game, but if change requires politics, then it must be done. I would strongly urge fellow residents to become more informed and be engaged in the political opportunities provided by PRS and ACR.

Ravi Kagali, MD
PGY-3, Diagnostic Radiology Resident
Geisinger Medical Center

Twitter for Radiologists

A brief outline of highlights from a presentation to the PRS Board:

- Online **social networking** and **microblogging** service
- Send and read **140** character messages (**tweets**)
- **@mention** - by placing the @ symbol in front of a username, you can tag another user in your Tweet
- **@reply** - by starting your Tweet with @username, you can reply publicly to a single user
- **Direct message (DM)** - private message directly to a user on Twitter who is already following you
- **Retweet** - publicly share a Tweet from another user
- **# (Hashtag)** – by clicking on the hashtag, you can see other Tweets using that same term
- Follow **@PAradsociety** – receive updates, support the society, and spread the word!
- Who to follow:
    - @PAradsociety
    - @ACRRAN
    - @JulieGubernick
    - @DrSoGu – Sonia Gupta

- @DrGMcGinty – Geraldine McGinty
- @roguerad – Harry Jha
- @asset25 – Tessa Cook
- @RichDuszak
- @fjlexa – Frank Lexa
- So many more…

- Tips
  - Assume everything is **PUBLIC** aside from "direct messages"
  - Share the love – follow colleagues, retweet comments, expand you network!
  - Create separate personal and professional accounts

Akash Patel, MD
Eastern PA PRS Resident Representative
PGY-5, Diagnostic Radiology Resident, Hospital of the University of Pennsylvania

ANNUAL MEETING

Program Update

The PRRS education committee is planning a full day of CME at the fall annual meeting. We are pleased to welcome back Richard Duszak, MD, FACR to update the society on current topics in health policy and practice, and David Levin, MD, FACR on the need for price transparency. A new addition to our program is Dr. Elliott Fishman, MD, FACR, who will reprise his RSNA 2016 talk regarding use of the internet and social media in patient centered radiology. Mary Scanlon, MD, FACR will again lead a panel in another informative presentation for the society on hot topics affecting today's trainees.

Beverly Hershey, MD
Philadelphia

Scientific exhibits:

Applications should be submitted along with your electronic exhibit. All electronic exhibits must be submitted by Friday, August 18th, 2017. Submissions received after this date will not be accepted for the annual meeting.
All exhibits will be considered regardless of whether they have been previously shown at other meetings. A maximum of up to 12 slides is recommended. All exhibits will be posted on the PRS member website. Acceptance of your exhibit will not preclude it from being exhibited elsewhere or submitted for publication.

Electronically Submit Application To:
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Chair Annual Meeting Exhibits Sub-Committee
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