

## 436<sup>th</sup> MEETING OF THE FACULTY SENATE MINUTES

3:00 PM, Wednesday, January 21, 2015

School of Medicine Administration, Boardroom 103

**PRESENT:** Drs. Barone, Blakeley, Bunz, Chanmugan, Chung, Crino, Gonzalez-Fernandez, Heitmiller, Ishii, Lehmann, Li, Macura, Mian, Mooney, Pettigrew, Pluznick, Poynton, Shuler, Urban

**Mmes:** Mssrs: Rini

**ABSENT:** Drs. Aucott, Bivalacqua, Bydon, Conte, Daoud, Daumit, Lacour, McCormack, Nieman, Puettingen, Reddy, Shepard, Sokoll, Solomon, Sperati, Srikumaran, Swartz, Taverna, Tufaro, Wade, Wilson

**Mmes:** Tewelde Mssrs: Gable, Lee, Johnson, Puts

**REGULAR GUESTS:** Drs. Skarupski, Gauda

**Mmes:** Viertel Mssrs:

**GUESTS:** Dr. Robert Kritzler, Dr. Bruce Berlanstein, Leslie Beck, Dr. Bashar Safar (in lieu of Dr. Ahuja), Dr. Joseph Kligman (in lieu of Dr. Dlhosh)

### I. Approval of the minutes

Meeting called to order at 3:02 PM. The minutes of the 435<sup>th</sup> meeting of the Faculty Senate held on December 10, 2014 were approved. Dr. Crino mentioned that the heavy snowfall had resulted in more senator absences. He then announced substitute representatives, Dr. Safar for surgery and Dr. Kligman for P/T medicine.

**II. Corinne Pettigrew, PhD, Postdoctoral Research Fellow** introduced the Faculty Senate to the Johns Hopkins Postdoctoral Association initiatives. They are as follows: advocacy, networking & social events, visibility, and professional development. In terms of advocacy, the Postdoc association holds a well-attended bi-yearly orientation, conducts an annual survey, and advocates for medical research funding. Their networking and social events include celebrating *National Postdoc Appreciation Week*, culturally-themed and holiday events, activities, socials, and coffee breaks. The visibility initiative is pursued through the use of the [JHPDA website](#), weekly bulletins, and an e-mail listserv. Finally, for their professional development initiative, the PDA hosts speakers, career and informational seminars, and an annual postdoc retreat. Their second retreat will be held in April and includes research presentations, travel awards, speakers, and training sessions. Dr. Pettigrew asked the senate for suggestions related to their initiatives and requested representatives to consider volunteering their time at the retreat.

**III. Michael Barone, MD, MPH, Associate Dean for Faculty Educational Development** gave an overview of the latest in happenings on the educational front. First, he introduced the “Vice Deans’ Series on Teaching Excellence,” a regular series of educational workshops presented by the department director-nominated top educators across the School of Medicine. He disclosed some concern regarding low-attendance for teaching-related seminars and that he is relying on senators to encourage their constituents to attend these drop-in workshops. Dr. Barone also made announcements regarding: the IEE annual conference (which will include the popular ‘Shark Tank’ session that debuted last year and that includes a \$10k award for educational innovation); the IEE Berkheimer Faculty Education Scholar Grant Award (\$50k for an educational scholarly project); and collaboration on faculty development with All Children’s Hospital in Florida.

**IV. Estelle Gauda, MD, Senior Associate Dean for Faculty Development** presented the results of the faculty survey on administrative support. The survey indicated that, of the 75% of faculty members with administrative assistance, 89% of those shared the administrator with other faculty members. Satisfaction with their administrative support was reported by 38% of faculty, while 28% reported varying levels of dissatisfaction. Faculty reported high proficiency among their administrative assistants for the following skills: answering phones, taking accurate messages, keeping calendars, representing the institution professionally, and using Word. Low proficiency was reported in the formatting CVs/ NIH bio sketches, helping with grant submission, budget prep, and manuscript submission. Comments were made regarding the issues related to retaining administrative assistants, the effect of level of pay, continuing education training for assistants, and the difficulty associated with getting qualified applicants.

**V. Robert Kritzler, MD, Deputy Chief Medical Officer and Bruce Berlanstein, MD, Vice Chair for Operations for Radiology** gave a presentation on Clinical Decision Support (CDS) for Imaging. CDS systems “link health observations with health knowledge to influence health choices by clinicians for improved health care.” Drs. Kritzler and Berlanstein urged for the consideration of CDS implementation due to the escalation of health care expenses, overexposure to radiation in imaging, and due to the fact that some ordered imaging exams are redundant, inappropriate, and may result in undesirable outcomes. In

certain circumstances this approach was shown to significantly reducing costs associated with unnecessary imaging; implementation will change the workflow and was met with hesitation by physicians. The need for customization is imminent; the Clinical Decision Support system would not be implemented without further clinician input.

- VI. Kimberly Skarupski, PhD, MPH, Assistant Dean for Faculty Development** presented the 2015 Office of Faculty Development programs. Dr. Skarupski began by introducing the senate to the revamped OFD website, then continued with OFD ongoing programs such as the JFLP, WAGs, and K-Clubs. She also announced upcoming seminars such as PowerPoint Improv (3/12/15), Promotion at Hopkins (4/10/15), Time Management (4/22/15), and Mentee Rules (5/11/15).

Dr. Crino thanked everyone for coming and adjourned the meeting at 4:53 PM.

Respectfully submitted,  
Masaru Ishii, MD, PhD  
*Recording Secretary*



# Johns Hopkins Postdoctoral Association

***Faculty Senate Meeting, January 21, 2015***

***Presented by: Corinne Pettigrew, PhD***  
*JHPDA Co-President, 2014 - 2015*

# Mission Statement

*The Johns Hopkins Postdoctoral Association supports and enhances the postdoctoral experience at Johns Hopkins University on the East Baltimore and Bayview campuses. As an Association run by postdocs, we advocate the concerns of postdocs, foster awareness of different professional opportunities, and build a sense of community in the academic and social realms. We bring the interests and concerns of postdocs to the attention of the administration in order to initiate constructive and mutually beneficial changes.*

Approved January 2015



# History & Constituents

- 1992 – Founding of JHPDA
- 1994 – Officially recognized by Johns Hopkins
  - One of oldest postdoc associations in the U.S.
- Membership includes postdoctoral fellows in:
  - School of Medicine  $n = 1,259$
  - Bloomberg School of Public Health  $n = 154$
  - Extending – School of Nursing  $n = 6$



# Executive Committee

**Purpose:** To oversee the direction, strategy and budget of JHPDA

## Co-presidents



Corinne Pettigrew



Casey Rebholz

## Treasurer



Jeff Norris

## Secretary



Pankhuri Vyas

# Committees & Collaborators

## JHPDA Committees



## Frequent collaborators

- Office of Postdoctoral Affairs
  - Dr. Martha Zeiger, Associate Dean of Postdoctoral Affairs
- Professional Development Office
- Homewood Postdoctoral Association
- Graduate Student Association
- Biomedical Careers Initiative



# 2014-2015 Initiatives

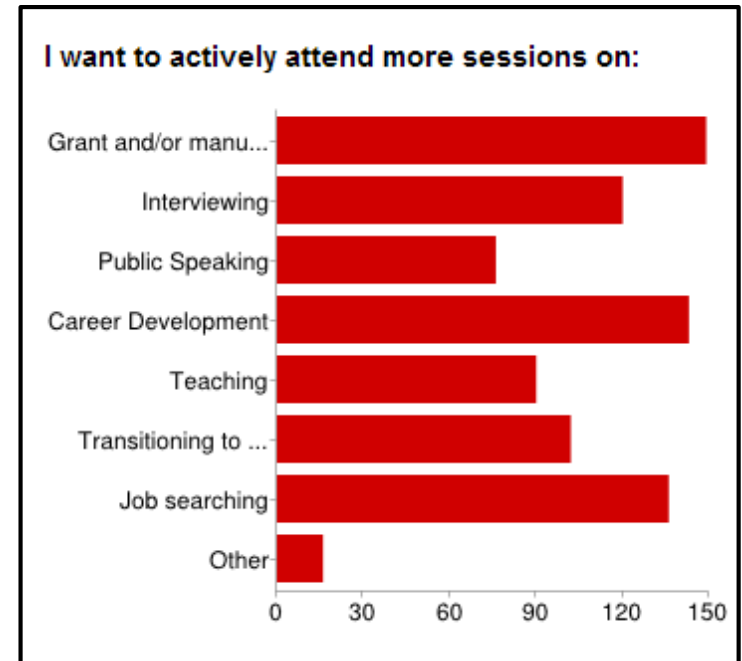
1. Advocacy
2. Networking & Social Events
3. Visibility
4. Professional Development





# Advocacy

- Postdoc Orientation
  - 1/2015:  $n = 40$ ; 7/2014:  $n = 50$
  - Participation from:
    - Benefits (SOM & SPH)
    - Health Services (primary care and mental health)
    - Office of International Services
    - Welch Library
    - Professional Development Office
- Annual postdoc survey
  - 2014:  $n = 294$
- Advocate for medical research funding



**Speak out for science!**  
Don't let shrinking funding cripple progress.



**JHPDA event**  
Policy and Advocacy Committee

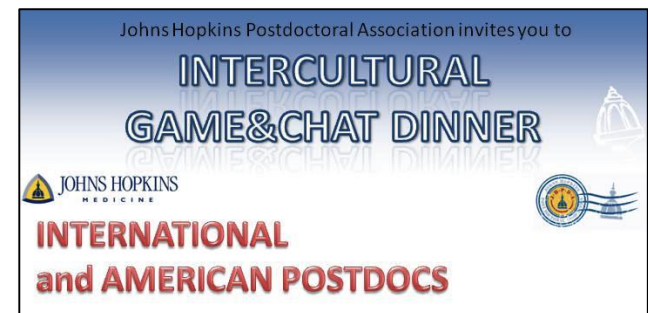
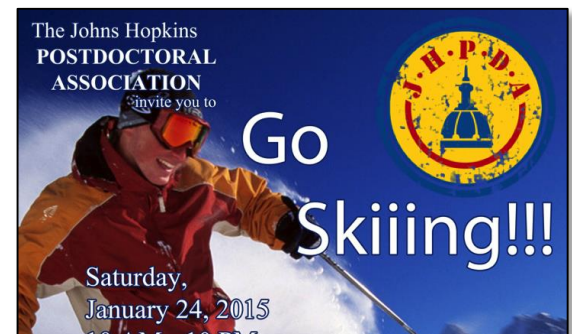
Meet with congressional leaders and advocate for medical research funding.



# Networking & Social Events

- National Postdoc Appreciation Week
  - 2.5 weeks of events
  - Discounts from local businesses
- Culturally-themed & holiday events
  - e.g., Diwali ( $n = 142$ ), Chinese New Year, Cinco de Mayo, Postdoctoberfest ( $n = 251$ ), Greek holiday party ( $n = 137$ )
- Monthly shuttle socials
- Outdoor activities
  - e.g., ski trip, hiking, paintballing
- Internationally-themed movie & game nights
- Coffee breaks ( $n=105$ )

Sept 15-19  
**NPAW**  
2014



# Visibility

- JHPDA website ([jhpda.jhu.edu](http://jhpda.jhu.edu))
- Weekly bulletins
  1. JHPDA events
  2. Professional Development Opportunities
  3. Science & Community Outreach Events
  4. Fellowship & Job Opportunities
  5. Events Around Baltimore
- New email list to communicate directly with SPH & SON postdocs

**JHPDA Weekly Bulletin**  
5 January 2015  
contact: [postdoc@jhmi.edu](mailto:postdoc@jhmi.edu)  
website: [jhpda.jhu.edu](http://jhpda.jhu.edu)

Did you know? The deadline for applications for an internship opportunity at MedImmune is today! For details click [here](#).

### HIGHLIGHTS

**New Content**

- [In Brief: Postdoc orientation](#)
- [Postdoctoral Affairs' Lecture Series: Dr. Victor Ambros](#)
- [Movie Screening: Very Young Girls](#)

**Recurring Content**

- [Professional Development](#)
- [Science & Community Outreach](#)
- [Job Opportunities](#)
- [Events around Baltimore](#)

### Upcoming JHPDA Meetings

*(Campus map for meeting & event locations)*

**JHPDA Monthly Meeting**  
Learn about ongoing JHPDA programming and events. Open to all!  
**When:** Wednesday, January 7th, 5:30 pm  
**Where:** Preclinical Teaching Building (PCTB) room 113/114 (opposite the Greenhouse Cafe)

**Communications Committee Meeting**  
Learn about ongoing communications initiatives; all welcome!  
**When:** Tuesday, January 13th, 11:00 am  
**Where:** MRB/BRB Daily Grind  
**Contact:** [postdoc@jhmi.edu](mailto:postdoc@jhmi.edu)

### IN BRIEF: Postdoc Orientation

Do you know about your health insurance benefits? Do you know about the Professional Development Office? Do you know about the JHPDA? This orientation will help to answer these and many other questions. We hope you will take some time out of your busy day to learn more about what Johns Hopkins University has to offer.

**When:** Thursday, January 15th, 3:00 - 5:00 pm  
**Where:** Miller Research Building (MRB), Room G01, ground floor near the fountain ([map](#))  
**Who:** ALL (new or established) Hopkins postdoctoral fellows  
**Questions?** Contact [postdoc@jhmi.edu](mailto:postdoc@jhmi.edu)

[Please Register here](#)  
Includes a snack and beverage break!

### UPCOMING JHPDA EVENTS

#### Postdoctoral Affairs' Lecture Series, Thurs., Jan. 29th

The Office of Postdoctoral Affairs invites you to attend a lecture by Victor Ambros, PhD.


Dr. Ambros is the discoverer of microRNAs and Professor at the University of Massachusetts Medical School. He is a recipient of both the Lasker and Breakthrough Awards.

**When:** Thursday, January 29th, 3:00 pm  
**Where:** Tilghman Auditorium  
**Questions?** Contact [postdoc@jhmi.edu](mailto:postdoc@jhmi.edu)





# Professional Development

- Visiting speakers & career seminars
  - e.g., Johns Hopkins Success Stories
- Research Presentation Club
  - Expert pearl & postdoc presentation
- Visa seminar (informational)
- Annual Postdoc Retreat
- Improvements to training (in collaboration with Dr. Martha Zeiger)
  - Distribution of and recommendations for use of *Individual Development Plan*
  - Mini-internships for gaining experience in diverse careers



Johns Hopkins Postdoctoral Association  
**Career Seminars by**



*Joanne Kamens, PhD*  
*Executive Director*  
*Addgene, a non-profit biotech*



**Research  
Presentation Club**



**Wednesday, November 19**  
**Noon – 1:00 pm**

**“Johns Hopkins Success Stories”**

***From Brazil to Baltimore: How to Work  
Your Way to The Top?***



**An interview with**  
Joao Lima M.D., MBA  
Professor of Medicine, Radiology and Epidemiology  
Director of Cardiovascular Imaging  
Division of Cardiology

*For POSTDOCS  
By POSTDOCS*





*"Oh, the places you'll go"*



Academic & diverse careers paths for postdocs

The 2<sup>nd</sup> Annual Johns Hopkins Postdoctoral Retreat

- Co-sponsored by JHPDA & HW-PDA
- 1<sup>st</sup> retreat: May 2014 on Homewood campus
- 2<sup>nd</sup> retreat: **Tuesday, April 7, 2015** on East Baltimore campus
  - Research presentations by postdocs (oral, poster)
  - Travel awards
  - Training sessions
  - Guest speakers
    - Dan Beaudry, *Power Ties: The International Student's Guide to Finding a Job in the US*
    - Gerald Klickstein, *The Musician's Way*

Roundtable discussion on diverse careers

Panel presentation on academic careers

How to prepare an academic job application

Identifying transferable skills & the IDP



# Feedback

- Suggestions for increasing JHPDA visibility
- Ideas for collaboration across schools
- Suggestions for garnering support from faculty
- Volunteers for retreat participation



# THANK YOU!



## Contact us:

- ❑ Monthly meetings –  
1<sup>st</sup> Wednesday  
February 4, 2015)
- ❑ [jhpda.jhu.edu](http://jhpda.jhu.edu)
- ❑ [postdoc@jhmi.edu](mailto:postdoc@jhmi.edu)



# JHPDA's Structure

## JHPDA Committees



**International Committee:** provides info on settling into life in Baltimore; organizes international-themed events and networking opportunities

**Professional Development Committee:** organizes professional enhancement events including career information sessions, speakers and workshops

**Communications Committee:** organizes the ads and emails about JHPDA events; manages the JHPDA website and queries

**Policy & Advocacy Committee:** identifies issues relevant to postdocs and brings them to the attention of various Offices

**Social Committee:** organizes social events for networking and socializing outside of the lab

**Diversity Postdoc Alliance:** supports and encourages diversity in science through representation, outreach, leadership, and awareness initiatives





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M E D I C I N E

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HEALTHCARE

# Clinical Decision Support Imaging

Johns Hopkins Faculty Senate Meeting  
January 21, 2015

Presented by: Bruce Berlanstein, M.D., Robert Kritzler, M.D.

# Introduction

"Clinical Decision Support systems link health observations with health knowledge to influence health choices by clinicians for improved health care".

-Robert Hayward, Centre for Health Evidence

# Why consider Clinical Decision Support (CDS)?

- High tech medical imaging studies contribute to escalation of health care expenses
- Some ordered imaging exams are inappropriate, redundant, and may result in undesirable outcomes
- Interest in feedback on provider ordering profiles
- Interest in patient outcomes related to ordered studies



# Data on Overuse

## -using Milliman Benchmarks

- JHHC has three health plans with a medical spend in excess of \$1.6B.
- Data strongly suggests overuse of high tech imaging.
  - Radiation
  - Cost
- 40+% of care is provided within JHM
  - Therefore we suggest all JHM may well be overusing as well.



# Example

CY2013 Milliman Well Managed Benchmark: 87.6/1000 (64 and under) 308.0/1000 (65 and over)

CY2013 Milliman Moderately Managed Benchmark: 177.3/1000 (64 and under) 536.5/1000 (65 and over)

CY2013 Milliman Loosely Managed Benchmark: 266.9/1000 (64 and under) 765.0/1000 (65 and over)

US Family Health Plan	64 and Under	65 and Over	Total
Average Cost per Service (Blend FY13+FY14)	\$371	\$303	
Reduction in Services per 1,000 to moderate	62.6	82.8	
Estimate Impact if moved to moderate	\$715,192	\$195,636	
Reduction in Services per 1,000 to moderate managed	152.3	311.3	\$910,828
Estimate Impact if moved to well managed	\$1,739,327	\$735,535	\$2,474,862



# Approaches to Controlling Imaging Associated Costs

- Pre-authorization
  - Radiology benefit managers
  - Effective but places an intermediate level of administration between provider and patient
  - Algorithms are proprietary and may not be evidence based
  - Little to no educational feedback to providers
  - Requires time and possible expense by physician's staff
  - Incentivized to control costs



# Approaches to Controlling Imaging Associated Costs

- Clinical decision support
  - Immediate feedback to requesting physician
  - Evidence based and may be updated
  - Embedded in workflow
  - Provides references for recommendations with potential educational benefit



# Reasons for Increased Utilization of Imaging

- New technologies
- Defensive medicine
- Patient demand
- Studies as part of a protocol
- Duplication due to lack of image sharing





# Objectives of CDS

- Improve quality
  - Avoidance of unnecessary radiation and downstream procedures
- Manage costs
- Decrease inappropriate, redundant or unnecessary imaging
  - Provides alerts regarding prior imaging to reduce redundant testing
- Provide educational feedback and alternative procedures with higher evidence based benefit



# Factors Considered in CDS

- Appropriateness of test
  - Appropriateness score 1-9 provided
- Need for contrast
- Pre-medication for allergic patients
- Availability of prior examinations
- Need for phone consultation with imaging
- Need for protocolling of diagnostic study



# Evidence Used in CDS

- From peer review publications
- From professional society guidelines
- From local best practices
- From ACR appropriateness guidelines
- From commercial point of care decision tools
- Source of evidence must be transparent
- Evidence can be updated as needed
- Evidence must be brief, actionable and unambiguous



# Dissemination of CDS

- CDS utilized at the following medical centers:
  - University of Pennsylvania Hospital
  - Weill Cornell/New York Presbyterian
  - Geisinger Health System
  - Marshfield Clinic
  - Brigham & Women's Hospital
  - Massachusetts General Hospital
- Meaningful use encouraging further dissemination of CDS
- State of Minnesota - 50% of exams ordered are through CDS



# Elements Required for Success of CDS

- Physician acceptance most critical
- Leadership committed to CDS
- Ease of use
- Achievable goals of decreasing utilization
- Integration into provider workflow
- Allowance for change of action as opposed to stopping action



# Evidence for Success of CDS

- Data is limited but promising
- At Brigham & Women's 12% reduction in high cost CT and nuclear cardiac exams, but not change in MRI over 5-year period
- In Minnesota, imaging utilization growth decreased from 8% to 1% since introduction of CDS
- At MGH low useful exams decreased from 6% to 2%
- At Brigham & Women's ER CT for PE showed significant increased yield after CDS implementation

# Potential Future Use of CDS

- May be used in medical simulations
- Analysis of impact of patient outcomes
- Development of prediction models with pre- and post-test probabilities of disease
- Development of tailored diagnostic algorithms for individual patients (personalized medicine)



# Government Mandates for CDS

- Imaging utilization and the appropriateness of imaging is a main focus of health policy discussions today.
- HR4302 has provision that creates imaging clinical decision support program in Medicare. Program to be implemented in 2017 and prevents Medicare from adopting call in prior authorization for imaging utilization management.
- March 28, 2014 House of Representatives passed a patch to Medicare sustainable growth formula.
- March 31, 2014 Senate passed the same bill, HR4302.
- April 1, 2014 President Obama signed a patch to the specific growth rate which included a requirement for decision support to be used for imaging by 2017.





# CDS impact on JHM Strategic Goals

- People: Invests in professional development, mentoring and advancement through use of health IT.
- Biomedical discovery: Supports JHM efforts for collection, management and analysis of large clinical dataset.
- Patient and Family Centered Care: Mostly safety/radiation exposure.
- Education: Very clear evidence at the point of care.
- Integration: Promotes inter-specialty consultation and a unified delivery of evidence based care.
- Performance: Savings opportunity in the range of \$2M to \$7M+



# Appendix I - Basic Definitions

- Computerized Physician Order Entry (CPOE)
  - Providers select the diagnostic test to order from a predetermined set of menus
  - Computer prompts for relevant clinical information
  - Check boxes and provide text as part of order
- CDS
  - Iterative interaction between user and computer system with respect to ordering exams
  - Provides immediate feedback to ordering provider at time of order entry
  - Combines evidence with pertinent clinical history or results



# Appendix II-Example of CDS Screen

The screenshot shows a web browser window with the URL [www.nymiis.com/wp-content/uploads/2013/03/NYMIIS-2014-Andriole.pdf](http://www.nymiis.com/wp-content/uploads/2013/03/NYMIIS-2014-Andriole.pdf). The page is titled "Decision Support" and "Order Placement".

Patient Name: <b>OETEST, CLOVIS</b>	BWH MRN <b>11489945</b>		
Birth Date: August 9, 1972	Age: 40 years	Gender: Female	Phone Number: 6177325500
Ordering Provider: <b>Andriole, Kathy, PhD</b>	Payor: BWH - BCBS of MA /HMO Blue/Blue Choice		
Exam: <b>CT Chest Pulmonary Embolism</b>	Order ID: 20278576	Room: N/A	
Created By: N/A	Ordering Site: TEST PRACTICE		

**Decision Support**

Based on the information you have provided, a CT may not be appropriate for your patient. Published guidelines suggest that a patient with a low clinical probability of PE should have a D-dimer measured to further guide decision making. A negative D-dimer result, in combination with your patients's risk via the Wells Criteria, may safely exclude PE.

This information is presented to assist you in providing care to your patients. It is your responsibility to exercise your independent medical knowledge and judgment in providing what you consider to be in the best interest of the patient.

[More Info](#)  
[Feedback](#)

A red arrow points to the "Ignore" button.

<http://www.nymiis.com/wp-content/uploads/2013/03/NYMIIS-2014-Andriole.pdf>



# Appendix III CDS Advice for Pre-treatment of Allergic Patient

**Note by Partners:** Welcome to Percipio!

**Decision Support** **Order Placement**

Patient Name: <b>OETEST, BRIDGET</b>	BWH MRN: :		
Birth Date: [ ]	Age: 36 years	Gender: Female	Phone Number: [ ]
Ordering Physician: [ ]	Payer: Tufts		
Exam: <b>CT Head</b>	Order ID: 3084640		
Signs and Symptoms: <b>I want this</b>			
Relevant History: <b>I am me</b>			
Created By: N/A	Ordering Site: TEST PRACTICE		

**Decision Support**

In patients with prior contrast reactions pre-treatment with:

- Prednisone 40 mg p.o. the evening prior to the exam (or 32 mg methylprednisolone) AND
- Prednisone 40 mg p.o. two hours prior to the exam (or 32 mg methylprednisolone)

has been shown to lessen the number and severity of subsequent reactions. THIS EXAMINATION WILL NOT BE PERFORMED UNLESS THE PREMEDICATION SCHEDULE ABOVE HAS BEEN FOLLOWED EXACTLY. Only low osmolar contrast material will be used in the examination following pre-medication.

This information is presented to assist you in providing care to your patients. It is your responsibility to exercise your independent medical knowledge and judgment in providing what you consider to be in the best interest of the patient.

[More Info](#)  
[Feedback](#)

[Reset Order](#) [Ignore](#)

<http://www.nymiis.com/wp-content/uploads/2013/03/NYMIIS-2014-Andriole.pdf>



# Appendix IV

## CDS Advice for Conservative Treatment

File Edit View History Bookmarks Tools Help

Johns Hopkins Institutions... BRUCE Berlanstein - Outlo... Slides | New York Medical Ima... NYMIIS-2014-Andriole.pdf NYMIIS-2014-Andriole.pdf How to Capture Screen Sh...

www.nymiis.com/wp-content/uploads/2013/03/NYMIIS-2014-Andriole.pdf

bert hayward clinical decision support

Most Visited Getting Started Johns Hopkins Subspecialty Expertise... Gmail: Email from Goo... Outlook - bberlanstein... Outlook Web App

Page: 24 of 84 Automatic Zoom

### Decision Support

**Published guidelines from the American College of Physicians and American Pain Society recommend a course of conservative therapy prior to imaging.**

Conservative therapy options include; intensive interdisciplinary rehabilitation, exercise therapy, acupuncture, massage therapy, spinal manipulation, yoga, cognitive-behavioral therapy, or progressive relaxation.

Please note that the information is presented to assist you in providing care to your patients. We do not provide advice regarding the appropriateness of coding, billing or claims processing. We make no representations regarding the payment or reimbursement for services rendered.

Cancel Ignore Add Indications

[More Info](#)

[Feedback](#)

<http://www.nymiis.com/wp-content/uploads/2013/03/NYMIIS-2014-Andriole.pdf>

Presented by: Bruce Berlanstein, M.D., Robert Kritzler, M.D.  
1/21/15



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# Impact of IT-enabled Intervention on MRI Use for Back Pain



Ivan K. Ip, MD, MPH,<sup>a,b,c,d</sup> Esteban F. Gershanik, MD, MPH, MMSc,<sup>a,b,c,d</sup> Louise I. Schneider, MD,<sup>a,b,c,d</sup>  
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Ramin Khorasani, MD, MPH<sup>a,b,d</sup>

<sup>a</sup>Center for Evidence-Based Imaging, <sup>b</sup>Department of Radiology, <sup>c</sup>Department of Medicine, <sup>d</sup>Brigham and Women's Hospital, <sup>e</sup>Department of Emergency Medicine, and <sup>f</sup>Brigham and Women's Physician Organization, Harvard Medical School, Boston, Mass.

## ABSTRACT

**BACKGROUND:** The purpose of this study was to examine the impact of a multifaceted, clinical decision support (CDS)-enabled intervention on magnetic resonance imaging (MRI) use in adult primary care patients with low back pain.

**METHODS:** After a baseline observation period, we implemented a CDS targeting lumbar-spine MRI use in primary care patients with low back pain through our computerized physician order entry, as well as 2 accountability tools: mandatory peer-to-peer consultation when test utility was uncertain and quarterly practice pattern variation reports to providers. Our primary outcome measure was rate of lumbar-spine MRI use. Secondary measures included utilization of MRI of any body part, comparing it with that of a concurrent national comparison, as well as proportion of lumbar-spine MRI performed in the study cohort that was adherent to evidence-based guideline. Chi-squared, *t*-tests, and logistic regression were used to assess pre- and postintervention differences.

**RESULTS:** In the study cohort preintervention, 5.3% of low back pain-related primary care visits resulted in lumbar-spine MRI, compared with 3.7% of visits postintervention ( $P < .0001$ , adjusted odds ratio 0.68). There was a 30.8% relative decrease (6.5% vs 4.5%,  $P < .0001$ , adjusted odds ratio 0.67) in the use of MRI of any body part by the primary care providers in the study cohort. This difference was not detected in the control cohort (5.6% vs 5.3%,  $P = .712$ ). In the study cohort, adherence to evidence-based guideline in the use of lumbar-spine MRI increased from 78% to 96% ( $P = .0002$ ).

**CONCLUSIONS:** CDS and associated accountability tools may reduce potentially inappropriate imaging in patients with low back pain.

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**KEYWORDS:** Clinical decision support; Health information technology; Imaging use

SEE RELATED EDITORIAL p. 463

With the substantial financial investment associated with the Health Information Technology for Economic and Clinical Health provisions of the American Recovery and

Reinvestment Act of 2009 comes great expectations that health information technology (HIT) will not only enhance patient safety and improve quality of care but also reduce

**Funding:** This study was funded in part by Grant 1UC4EB012952-01 from the National Institute of Biomedical Imaging and Bioengineering.

**Conflict of Interest:** RK is a consultant to Medicalis Corporation. RK is named on US Patent 6,029,138 held by Brigham and Women's Hospital on Clinical Decision Support-related software licensed to Medicalis Corporation in the year 2000. As the result of this licensing, Brigham and Women's Hospital and its parent organization, Partners Healthcare Inc., have equity and royalty interests in Medicalis. SS is President of Brigham Radiology Research and Education Foundation, which has been an equity holder in Medicalis Corporation. SS has been the recipient of research grants from Siemens, GE, and Toshiba, and is on the Board of Directors of

the Association of University Radiologists, Society of Chairs of Academic Radiology Departments, and the Academy of Radiology Research. EFG is a stockholder in Amgen, Eli Lilly and Company, General Electric Company, Johnson & Johnson, and Pfizer, Inc.

**Authorship:** All authors had access to the data and played a role in writing the manuscript.

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waste such as unnecessary high-cost medical imaging. Yet, the impact of HIT on health care delivery remains largely unclear. Kellermann and Jones<sup>1</sup> noted that we have yet to fully capitalize on the \$81 billion in annual cost savings that was originally projected. In fact, McCormick et al<sup>2</sup> reported that HIT may even be associated with an unintended consequence of increasing cost.

Low back pain (LBP) is very common,<sup>3</sup> affecting approximately 70%-85% of Americans over their lifetimes,<sup>4</sup> and one quarter of US adults report LBP within the previous 3 months.<sup>5</sup> The estimated direct health care costs associated with spine problems exceeded \$85 billion, representing 9% of national health expenditures.<sup>6</sup> While lumbar spine magnetic resonance imaging (LS-MRI) is the preferred diagnostic examination for most spinal diseases (eg, cauda equina syndrome, infection, or neoplasm), its value in the investigation of simple back pain may be limited,<sup>7</sup> as imaging abnormalities and clinical symptoms are poorly correlated<sup>8</sup> and routine imaging is not associated with better pain relief, higher functioning, or improved quality of life.<sup>9-12</sup> Based on an extensive systematic review, the joint guidelines of the American College of Physicians and the American Pain Society (ACP/APS) recommend against routine imaging in patients with nonspecific LBP (ie, no severe or progressive neurologic deficits or evidence of serious underlying conditions).<sup>13</sup> Qaseem et al<sup>14</sup> identified imaging in patients with nonspecific LBP to be one clinical situation that does not reflect high-value care.

Despite evidence that routine imaging does not improve patient outcomes, clinical practice is often inconsistent with the ACP/APS guidelines. The use of LS-MRI has continued to increase, and there is evidence of wide practice variation.<sup>15,16</sup> Mafi et al<sup>17</sup> recently found that the management of back pain has relied increasingly on guideline-discordant care, with more frequent use of narcotics and high-cost imaging since 1999. The purpose of this study was to examine the impact of a multifaceted, clinical decision support (CDS)-enabled intervention based on the published ACP/APS guidelines,<sup>18</sup> on the use of MRI in adult primary care patients with low back pain.

## MATERIALS AND METHODS

### Study Setting and Cohort

Our study site consists of an integrated health system centered around an urban academic quaternary care hospital, with an outpatient network that spans 183 practices and 1200

physicians. The requirement to obtain informed consent was waived by the system's Institutional Review Board for this Health Insurance Portability and Accountability Act-compliant study. The study cohort included all adult patients who presented with LBP to a primary care physician (PCP) affiliated with our institution between 2007 and 2010. To

identify primary care visits for LBP-related conditions, we queried our institutional billing database to identify all primary care encounters of patients aged 18 years or older with an associated primary or top 2 secondary diagnosis of LBP using International Classification of Diseases, 9<sup>th</sup> Revision (ICD-9) codes (Appendix Table).<sup>17,19</sup>

### Control Cohort

To account for secular differences in MRI utilization, we selected a control cohort consisting of primary care visits of patients with LBP captured from the publicly available National Ambulatory Medical Care Survey (NAMCS) during the same time period. The NAMCS survey was designed

to be representative of outpatient care in the US, with data collected using a standardized form completed during each patient visit. NAMCS included data on patient's demographics, medications listed, laboratory and imaging studies ordered during the visit, as well as up to 3 diagnoses derived from ICD-9 codes. NAMCS does not provide details of the specific body part imaged with MRI, hence the need to compare MRI of any body part utilization. Using surveys conducted between 2007 and 2010, we included only primary care visits in adult patients aged 18 years or older. We used ICD-9 diagnosis (primary or secondary) to identify back pain-related visits based on the same codes as for the study cohort.

### Intervention

After a baseline data-gathering observational period of 7 quarters, we implemented a multifaceted intervention to promote guideline adherence in the use of LS-MRI in patients with LBP-related primary care visits in the study cohort. Our institution's computerized physician order entry (CPOE) system for imaging (Percipio, Medicalis Corp, San Francisco, Calif) is integrated into our health information technology infrastructure.<sup>20</sup> Based on the clinical history input via the CPOE system, real-time CDS launches, advising the orderer about the best diagnostic strategy if evidence is available. The CDS content for LS-MRI is derived from the ACP/APS guidelines,<sup>13</sup> which are based on systematic review and supported by moderate quality

### CLINICAL SIGNIFICANCE

- Evidence-based clinical decision support (CDS), with embedded consequences for ignoring evidence, was associated with a statistically significant decrease in lumbar-spine magnetic resonance imaging (MRI) use in patients with low back pain.
- A targeted CDS-enabled intervention was associated with an absolute increase in guideline adherence rate in the use of MRI.
- Health information technology tools can help improve quality and reduce waste by promoting evidence-based practice for diagnostic imaging.



evidence. In the absence of any clinical “red flags” (for which LS-MRI would be considered appropriate), CDS suggests that the LS-MRI is not indicated (**Figure 1**). The clinician may cancel the request, or ignore the CDS and proceed with the order. Preintervention, LS-MRI orders were placed via the CPOE system but did not trigger CDS. Only PCPs received the intervention, triggered based on their primary practice affiliation; medical and surgical subspecialists and emergency physicians placed orders for LS-MRI without receiving CDS.

In addition to CDS, our intervention included 2 components we termed “accountability tools.” The first was a mandatory near-real-time peer-to-peer telephonic consultation with a radiologist or internist familiar with the evidence before order completion when the orderer ignored a “not indicated” CDS alert. Alternatively, the orderer could avoid the peer-to-peer consultation workflow by cancelling the order. As a second accountability tool, quarterly practice pattern variation reports were sent to individual PCPs, depicting their LS-MRI utilization (number of LS-MRIs ordered per number of LBP-related visits) in comparison to peers.

## Data Collection and Sources

Patient demographics and imaging use in the study cohort were collected from electronic medical records. Any MRI ordered on the day of primary care visit from a primary care site, or an LS-MRI order from a specialist or PCP within 30 days after the date of primary care visit, was attributed to the visit. Similar data of patient demographics and MRI of any body part ordering patterns in the control cohort was collected directly from the NAMCS database. Due to the design of the NAMCS survey, the specific body part of MRI and subsequent imaging orders from specialists were not available.

To evaluate whether LS-MRI orders were guideline-adherent in the study cohort, 2 board-certified attending physicians reviewed the medical records. Based on power calculation with alpha of 0.05, power of 0.8, and confidence interval of 15%, charts of 200 randomly selected patients with visits in the pre- and postintervention periods (100 in each group) were reviewed to determine whether each study ordered was in adherence with the ACP/APS guidelines. Records also were reviewed to verify concordance between physician note documentation and CPOE system input. For example, a case would be considered not concordant if review of the physician note showed that an order was guideline-adherent while the LS-MRI order requisition (entered into the CPOE system) illustrated otherwise.

## Statistical Analyses



The primary outcome measure in our study cohort was the intensity of LS-MRI use, defined as the number of completed LS-MRI examinations that were ordered by PCP per LBP-related visit. As a secondary measure, we also examined the intensity of MRI of any body part use, an element that is captured by the NAMCS survey, thus allowing us to compare utilization in the study cohort to that of a concurrent control. MRI use intensity in the preintervention period was compared with that postintervention. For MRI of any body part, the change in MRI use intensity between the pre- and postintervention periods was compared with the control cohort to account for secular confounders. We also examined in the study cohort the rates of utilization of LS-MRI by both primary care and specialists, adherence rate to ACP/APS guideline for LS-MRI use, as well as the rate of follow-up LBP-related primary care visits within 30 days of the index visit. The 30-day follow-up timeframe was based on the ACP guideline recommendation of follow-up within

**DECISION SUPPORT**

Based on published evidence MRI is not recommended in the absence of clinical "red flags". If symptoms are disabling, consider consultation with the comprehensive spine center at

**Clinical guidelines from the American College of Physicians and American Pain Society:** Clinicians should perform diagnostic imaging and testing for patients with low back pain when severe or progressive neurologic deficits are present or when serious underlying conditions are suspected on the basis of history and physical examination (strong recommendation, moderate-quality evidence).

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**Figure 1** Screenshot of decision support for lumbar-spine MRI in patients with low back pain.

**Table 1** Patient Characteristics of Study and Control Cohorts

Characteristic	Study Cohort (n = 21,445)	Control Cohort (n = 2240)	P-Value
Sex			
Female, n (%)	14,950 (69.7%)	1283 (57.3%)	<.0001*
Age (years: average $\pm$ SD)	53.0 $\pm$ 15.6	50.5 $\pm$ 15.8	<.0001*
Race/ethnicity, n (%)			<.0001*
Caucasian	13,563 (63.2%)	1259 (56.2%)	
Black/African American	3785 (17.7%)	274 (12.2%)	
Hispanic	2080 (9.7%)	190 (8.5%)	
Asian	614 (2.9%)	27 (1.2%)	
Other	1403 (6.5%)	490 (21.9%)	

\*Denotes statistical significance.

4 weeks.<sup>13</sup> Analyses were performed using JMP 10 (SAS Institute, Cary, NC). Chi-squared and *t*-tests were used to assess pre- and postintervention differences. To adjust for demographic differences between the study and control cohorts, a logistic regression was performed. A 2-tailed *P*-value of <.05 was defined as statistically significant.

## Results

Between 2007 and 2010, there were 21,445 LBP-related primary care visits (8437 preintervention and 13,008 postintervention) by patients aged 18 years or older in the study cohort. There were 2240 (945 preintervention and 1295 postintervention) LBP-related primary care visits in the control cohort. Overall, 3.7% of primary care encounters in

the pooled study and control cohorts were LBP-related (3.6% in the study cohort; 6.5% in the control). In the study cohort, the mean patient age was 53.0 years, and 69.7% of patients were female. This represented a slightly older and more female-concentrated cohort than the control (50.5 years mean age, 57.3% female). Details of the patient demographic characteristics of the study and control cohorts are shown in **Table 1**.

Overall, 920 (4.3%) LBP-related primary care visits were associated with an LS-MRI ordered from the primary care practice on the day of visit in the study cohort. During the study period, we observed a decreased intensity in the use of LS-MRI among patients with LBP in the study cohort. In the preintervention phase, 5.3% of LBP visits (443/8437) were associated with an LS-MRI order; after our CDS-enabled interventions were implemented, utilization decreased by a relative 30.2% ( $P < .0001$ ), to a rate of 3.7% of LBP-related primary care visits ( $n = 477/13,008$ ). The approximately 30% relative decrease in LS-MRI utilization intensity in the study cohort postintervention persisted even after accounting for baseline demographic differences in age, sex, and race between the study and control cohorts (adjusted odds ratio 0.68,  $P < .0001$ ) (**Table 2**).

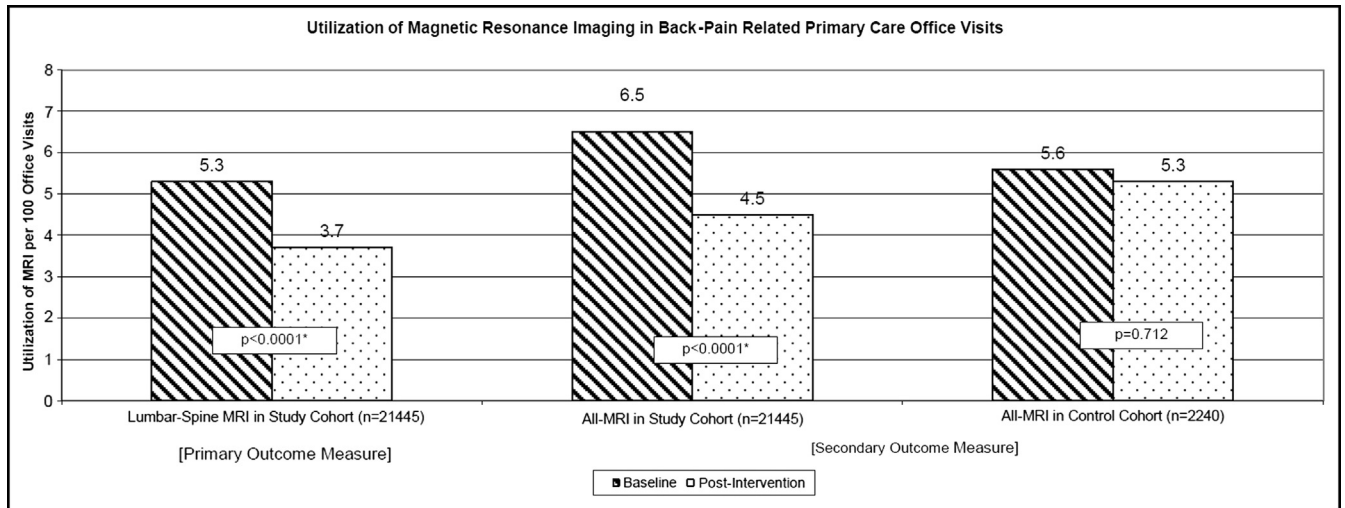
In the study cohort, 1251 (5.3%) LBP-related primary care visits were associated with an order for an MRI of any body part; 73.5% of these MRIs were for lumbar-spine (920/1251). In the preintervention phase, 6.5% of LBP visits ( $n = 546/8437$ ) were associated with an MRI of any body part order; after intervention, the utilization of MRI of any body part decreased by a relative 30.8% ( $P < .0001$ ), to a rate of 4.5% of LBP-related primary care visits ( $n = 584/13,008$ ). In contrast, in the control cohort of NAMCS-surveyed visits, the use of MRI of any body part did not change significantly

**Table 2** Results of Logistic Regression on the Use of Magnetic Resonance Imaging Controlling for Patient Characteristics in Study Cohort

Variable	Odds Ratio	95% CI	P-Value
Primary outcome measure: LS-MRI utilization			
Patient age (by year)	1.008 per year	1.004-1.013	.0002*
Patient sex (reference = female)	1.23	1.07-1.42	.004*
Race/ethnicity (reference = Caucasian)			.150
Asian	0.99	0.65-1.45	
Black/African American	0.79	0.65-0.95	
Hispanic	1.05	0.83-1.31	
Other	0.98	0.74-1.28	
Intervention	0.68	0.59-0.77	<.0001*
Secondary outcome measure: MRI of any body part utilization			
Patient age (by year)	1.008 per year	1.005-1.012	<.0001*
Patient sex (reference = female)	1.26	1.11-1.42	.0004*
Race/ethnicity (reference = Caucasian)			.178
Asian	1.11	0.77-1.55	
Black/African American	0.83	0.69-0.98	
Hispanic	1.06	0.86-1.30	
Other	1.01	0.79-1.28	
Intervention	0.67	0.59-0.75	<.0001*

CI = confidence; LS = lumbar spine; MRI = magnetic resonance imaging.

\*Denotes statistical significance.



**Figure 2** Comparison of MRI utilization before and after implementation of intervention.

( $P = .712$ ) over the same time frame (Figure 2). Similar to the primary outcome measure, the approximately 30% relative decrease in MRI of any body part utilization intensity in the study cohort postintervention persisted even after accounting for baseline demographic differences in age, sex, and race between the study and control cohorts (adjusted odds ratio 0.67,  $P < .0001$ ) (Table 2).

Table 3 depicts results for the tertiary outcome measures in the study cohort. There was a statistically significant relative increase of 22.7% (2.2% vs 2.7%) in the rate of LS-MRI ordered by outpatient specialists (eg, orthopedics, neurosurgery, rheumatology) within 30 days of a patient’s index primary care visit ( $P = .0292$ ), which suggests that some of the LS-MRI use may have simply shifted to ordering by specialists. However, the overall percentage of LBP-related visits that resulted in an LS-MRI within 30 days of the index visit remained significantly different in the pre- and postintervention periods, even after accounting for examinations that were ordered by specialists (8.9% vs 7.8%, relative 12% decrease,  $P = .0023$ ).

In the study cohort preintervention, 78% of LS-MRI orders were adherent to the evidence-based guideline,

compared with 96% after intervention ( $P = .0002$ ). There was 89% (89/100) concordance between users’ input into the CPOE system and the PCP clinic notes. The majority of the nonconcordance was due to incomplete documentation ( $n = 7$  of 100; 7%) of clinical information in clinic notes compared with LS-MRI order. In 4/100 instances (4%), discordance was noted with conflicting clinical information entered in clinic notes compared with LS-MRI order.

### DISCUSSION

Recent health care reform efforts aim to improve quality, reduce waste, and enhance value.<sup>21</sup> Clinical guidelines have been proposed as a way to increase clinical efficiency and minimize inappropriate care.<sup>22,23</sup> However, wide gaps between evidence and practice exist,<sup>24-26</sup> and significant implementation barriers persist.<sup>27</sup> In our study, we found that implementing a multifaceted intervention including education using CDS and accountability tools was associated with a 32%-33% decrease in LS-MRI and MRI of any body part use intensity while improving guideline-adherent practice. Given national promotion of adoption and

**Table 3** Analysis of Tertiary Outcome Measures in the Study Cohort\*

Outcome Measure	Preintervention	Postintervention	% Change	P-Value
Lumbar spine MRI ordered by any outpatient providers within 30 days of index primary care visit	753 (8.9%)	1009 (7.8%)	-12.3	.0023†
Lumbar spine MRI ordered by specialty clinics within 30 days	188 (2.2%)	352 (2.7%)	+22.7	.0292†
Lumbar Spine MRI ordered by primary care outpatient providers within 30 days	565 (6.7%)	657 (5.1%)	-23.9	<.001†
Follow-up PCP visit within 30 days	855 (10.1%)	1224 (9.4%)	-6.9	.080†
Guideline adherence rate in the use of lumbar spine MRI based on manual chart review	78/100 (78%)	96/100 (96%)	+23.1	.0002†

MRI = magnetic resonance imaging; PCP = primary care physician.

\*Due to the design of the National Ambulatory Medical Care Survey, tertiary outcome measure was not possible in the control cohort.

†Denotes statistical significance.

meaningful use of HIT,<sup>28</sup> these findings support the notion that HIT-enabled interventions using CDS can help improve quality and reduce waste by promoting evidence-based practice for diagnostic imaging.

Comparing with previous studies of imaging CDS, we observed a slightly greater improvement in guideline adherence than others.<sup>29,30</sup> In a time-series study, making appropriateness guidelines available in a CPOE system in 2 European emergency departments decreased nonconforming radiology orders from 33.2% to 26.9% ( $P = .0001$ ).<sup>31</sup> Blackmore et al<sup>29</sup> found that the use of imaging CDS was associated with a 23% decrease in the utilization rate of lumbar MRI for low back pain in a retrospective cohort study. Although HIT in the form of CDS likely played a critical role in our intervention, we believe our higher guideline adherence rates were due to the combined effect of CDS and complementary accountability tools. These tools highlight to providers the importance of quality and value, and the quarterly practice variation reports and peer-to-peer consultation likely reinforced this message regularly.

Although we found an adjusted 32% reduction in LS-MRI utilization on the same day as the index primary care visit postintervention, it is important to note that part of this decrease did not necessarily translate into reduction in use of LS-MRI in the 30-day interval after the index primary care visit. Our findings show that some patients still underwent LS-MRI studies, requested either through the PCPs or specialists, within 30 days of the index visit. Some of the studies that were ordered through primary care subsequently may represent care that is guideline adherent, performed in patients whose symptoms persisted despite conservative medical management. Yet, we also noted that the LS-MRI utilization rate actually increased, from 2.2% to 2.7% ( $P = .0292$ ), when examining those ordered by a specialist. This shift of ordering pattern to specialty providers in which the intervention was not implemented may have offset some of the MRI use reductions ordered by PCPs. Further research is needed to examine the impact of our intervention in non-primary-care settings.

Our study has several limitations. First, we could not measure the specific impact of individual components of our intervention (ie, CDS, quarterly reporting, and peer-to-peer consultation) on ordering behavior. However, we chose to implement a multifaceted intervention strategy, as previous research has found that interventions that target multiple behavioral factors are more likely to result in change.<sup>32-34</sup> Second, it is possible that our observed decrease in imaging use may not be solely due to our intervention, but also to confounders, such as increased public awareness of harm associated with inappropriate imaging, and the publication of the ACP guidelines during the study period. However, small-to-no decrease in imaging use was observed in the control cohort, which argues that guideline publication alone may not be an effective intervention for changing clinical practice.<sup>35</sup> Due to design of the NAMCS survey, body-specific imaging data (ie, LS-MRI) was not available. The difference in data collection methodology between

the study and control cohorts (health records in the study cohort vs survey in the control cohort) represents another limitation. However, other studies over the same time period have found that MRI use in the Medicare population based on claims data<sup>36</sup> is consistent with that revealed in NAMCS surveys. Additionally, our study was performed at a single academic medical center; thus, the generalizability of our findings in other settings is unclear. Furthermore, we used billing data in cohort identification, which may not have captured all eligible patients. Only orders placed through our institution were included, potentially underestimating imaging for our patients at outside institutions. However, such occurrences are estimated to be small and are thus unlikely to influence our findings. Finally, we did not assess the impact of our intervention on patient or provider satisfaction, which will be an important topic for future enquiry to help define best practices for implementing CDS-enabled interventions.

## CONCLUSION

A multifaceted intervention of evidence CDS, supplemented by near-real-time technology-enabled consequences for overriding CDS and quarterly practice pattern variation reporting, may be a valuable strategy to reduce potentially inappropriate imaging.

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## APPENDIX

**Table** ICD-9 Inclusion Codes for Cohort Identification

ICD-9 Code	Description
307.89	Psychogenic backache
721.3	Lumbosacral spondylosis w/o myelopathy
721.5	Kissing spine (Baastrup disease)
721.6	Ankylosing vertebral hyperostosis
721.7	Traumatic spondylopathy
721.8	Other allied disorders of spine
721.9	Spondylosis of unspecified site w/o myelopathy
722.1	Displacement of thoracic or lumbar disc w/o myelopathy
722.2	Degeneration of intervertebral disc, site unspecified
722.3	Schmorl's bides
722.5	Degeneration of thoracic or lumbar intervertebral disc
722.6	Degeneration of intervertebral disc, site unspecified
722.9	Other and unspecified disc disorder of unspecified region
724	Other and unspecified disorders of back
724.0	Spinal stenosis, not cervical
724.1	Pain in thoracic spine
724.2	Lumbago
724.3	Sciatica
724.4	Back pain with radiation, unspecified
724.5	Backache, unspecified
724.6	Disorders of sacrum (including lumbosacral junction)
733.10	Pathologic fractures, unspecified site
733.13	Pathologic fractures: vertebrae
733.93	Stress fracture of other bone
738.4	Acquired spondylolisthesis
738.5	Other acquired deformity of back or spine
739.2	Nonallopathic lesions-thoracic, not elsewhere classified
739.3	Nonallopathic lesions-lumbar, not elsewhere classified
739.4	Nonallopathic lesions-sacral, not elsewhere classified
756.11	Spondylolysis
756.12	Spondylolisthesis
846.0	Lumbosacral sprain
846.1	Sacroiliac (ligament) sprain
846.2	Sacrospinatus (ligament) sprain
846.3	Sacrotuberous (ligament) sprain
846.8	Other specified sites of sacroiliac region sprain
846.9	Unspecified site of sacroiliac region sprain
847.2	Thoracic sprain
847.3	Sacral sprain
847.9	Sprain—unspecified site of back

ICD = International Classification of Diseases.

# Office of Faculty Development (OFD)

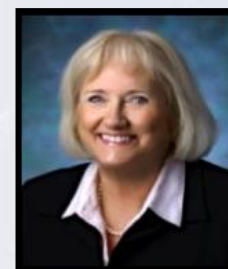
Kimberly A. Skarupski, PhD, MPH  
*Assistant Dean for Faculty Development*



JOHNS HOPKINS  
M E D I C I N E

# Office of Faculty Development (OFD)

- **Janice Clements, PhD**  
*Vice Dean for Faculty*
- **Estelle Gauda, MD**  
*Senior Associate Dean for Faculty Dev.*
- **Dave Yousem, MD, MBA**  
*Assoc. Dean for Professional Dev.*
- **Michael Barone, MD, MPH**  
*Associate Dean for Educational Development*
- **Kim Skarupski, PhD, MPH**  
*Assistant Dean for Faculty Development*
- **Linda Dillon Jones, PhD**  
*Senior Faculty Development Consultant*
- **Valentina Viertel, BS**  
*Program Coordinator*





# OFD Mission & Vision

OFD Mission: The Johns Hopkins University SOM's Office of Faculty Development **creates and delivers effective programs** that develop and nurture our diverse faculty as leaders in clinical care, medical education, and research excellence. Our focus on **enriching a culture of inclusion, respect, and engagement** is fundamental in accomplishing the Johns Hopkins mission and in enabling the School of Medicine **to attract and retain our talented faculty.**

OFD Vision: We envision a culture in which all faculty members are engaged, invested, and passionate about their *career development*.

# Revamped OFD Website

[http://www.hopkinsmedicine.org/fac\\_development/](http://www.hopkinsmedicine.org/fac_development/)



FONT SIZE PRINT THIS PAGE Share this page: [More](#)

[Home](#) > [Faculty Development](#)

## Faculty Development

- Overview
- Educators
- Clinicians
- Researchers
- Career Path
- Course Offerings
- Affiliates

### The Office of Faculty Development

#### Mission

The Johns Hopkins University SOM's Office of Faculty Development creates and delivers effective programs that develop and nurture our diverse faculty as leaders in clinical care, medical education, and research excellence. Our focus on enriching a culture of inclusion, respect, and engagement is fundamental in accomplishing the Johns Hopkins mission and in enabling the School of Medicine to attract and retain our talented faculty.

#### Vision

We envision a culture in which all faculty members are engaged, invested, and passionate about their *career development*.

#### Goals

- Partner with all levels of leadership to support faculty engagement and career advancement.
- Deliver effective knowledge and skill-building programs centered on:
  - leadership development
  - mentoring
  - grant writing and research
  - teaching skills and educational scholarship
  - improving efficiency and effectiveness
  - work-life integration
- Facilitate professional and peer networks.

#### Quick Links

[Faculty Resources Portal](#) | [Faculty Connects](#)

#### Contact

The Office of Faculty Development  
Johns Hopkins University - School of Medicine  
2024 East Monument Street, Suite 2-1000  
Baltimore, MD 21287

#### Find a Faculty Director

[Apply for Admission](#)

[Continuing Medical Education](#)

[Graduate Medical Education](#)

[Read Hopkins Medicine Magazine](#)

[Make a Gift](#)

#### Traveling for care?

Whether crossing the country or the globe, we make it easy to access world-class care at Johns Hopkins.

U.S. 1-410-464-6713 (toll free)  
International +1-410-614-6424

Ease your journey with our Medical Concierge Services:

- [U.S. Patients \(outside of Maryland\)](#)
- [International Patients](#)

# OFD

## Senior Advisory Council (SAC)

### Strategic Plan: PEOPLE

- strategy = “enhance support for junior faculty...”
- Charge = make recommendations concerning policies, programs, and initiatives to support the development and promotion of faculty in the SOM and to serve as a liaison for faculty development in each dept./section.



**Jude Crino, MD**  
Chairman,  
Faculty Senate



**Arjun Chanmugam, MD**  
Vice Chairman,  
Faculty Senate

SAC (N=34)	
Anesthesiology & Critical Care Medicine	Nauder Faraday
Emergency Medicine	Arjun Chanmugam, Rich Rothman
Gynecology and Obstetrics	Jude Crino, Vicki Handa
Medicine	Deidre Crews, Petros Karakousis, Rachel Levine
Neurosciences (Neurology & Neurosurgery)	Argye Hillis, Alex Kolodkin, Dwight Bergles, Judy Huang
Oncology	Diane Hayward, Richard Jones
Ophthalmology	Neil Miller
Orthopaedic Surgery	Jim Ficke
Otolaryngology and Head and Neck Surgery	Andrew Lane
Pediatrics	Sally Radovick
Plastic Surgery	Gedge Rosson
Psychiatry and Behavioral Sciences	Jennifer Haythornthwaite, Tim Moran
Radiology and Radiological Sciences	Zaver Bhujwala, Dave Yousem
Physical Medicine and Rehabilitation	Stephen Wegener
Surgery	Steve Yang, Martha Zeiger
<b>BASIC SCIENCES</b>	Geraldine Seydoux, Randy Reed, Chris Zink
<b>PHYSIOLOGY</b>	Bill Guggino
<b>BIOLOGICAL CHEMISTRY</b>	Jerry Hart
<b>CELL ENGINEERING</b>	Ted Dawson
<b>ICTR/CTSA Liaison</b>	Gail Daumit
<b>IEE</b>	Joe Cofrancesco

# OFD - Junior Faculty Resource Advisory Council (JRAC)

JRAC Charge: to: a) identify the support needed from leadership and senior faculty for junior faculty dev., b) prioritize the faculty dev. needs of junior faculty members in the School of Medicine (SOM) in alignment with the SOM's strategic plan, and c) serve as a liaison for faculty development in each respective department/section.

OFD Junior Faculty Resource Advisory Council (JRAC) (N=27)	
<i>Anesthesiology &amp; Critical Care Medicine</i>	Michael Banks, MD
<i>Dermatology</i>	Anna Grossberg, MD
<i>Emergency Medicine</i>	Nathan Irvin, MD
<i>Gynecology and Obstetrics</i>	Jenell Coleman-Fennell, MD, MPH Carolyn Sufrin, MD, PhD
<i>Medicine</i>	April Fitzgerald, MD Jason Kirkness, PhD Monica Mukherjee, MD Damani Piggott, MD, PhD
<i>Molecular and Comparative Biology (Basic Sciences)</i>	Lucio Gama, PhD
<i>Neurosciences (Neurology &amp; Neurosurgery)</i>	Christopher Oakley, MD Shiv Saidha, MBBCh Solange Brown, MD, PhD Eric Jackson, MD
<i>Oncology</i>	Amy Dezern, MD, MHS
<i>Ophthalmology</i>	Eric Singman, MD, PhD
<i>Orthopaedic Surgery</i>	Ranjit Varghese, MD
<i>Otolaryngology and Head and Neck Surgery</i>	Simon Best, MD
<i>Pathology</i>	Laura Wood, MD, PhD
<i>Pediatrics</i>	Oluwakemi Badaki-Makun, MD, CM Cozumel Pruette, MD
<i>Pharmacology &amp; Molecular Sciences (Basic Sciences)</i>	Namandje Bumpus, PhD
<i>Plastic Surgery</i>	Amir Dorafshar, MBChB
<i>Psychiatry and Behavioral Sciences</i>	Rheanna Platt, MD, MPH
<i>Radiology and Radiological Sciences</i>	Oluwatoyin (Toyin) Idowu, MD
<i>Radiation Oncology and Molecular Radiation Sciences</i>	Ana Ponce Kiess, MD, PhD
<i>Surgery</i>	Daniela Molena, MD

# Promotion at Hopkins: Principles & Process

***Next sessions: 1/14, 4/10 (4-5:30PM)***

- Empower yourself! Learn about the Hopkins promotions process. What are the requirements for academic promotion? What is the purpose of the director's letter? What is the Nomination Manager? What is an H index? What is in a typical associate and professor's CV? How do the committees work? How do I know if I'm ready? Active Q/A!

***W. P. Andrew Lee, MD***

**Chair, SOM Associate Professor  
Promotions Committee (APPC);  
Professor of Plastic Surgery**

***Nauder Faraday, MD***

**Vice Chair, SOM Associate Professor  
Promotions Committee (APPC);  
Professor of Anesthesiology**

***Justin C. McArthur, MBBS, MPH, FAAN***

**Chair of the Professorial Promotions  
Committee;  
Professor of Neurology, Pathology,  
Medicine, and Epidemiology; Director,  
Department of Neurology**



# Junior Faculty Leadership Program (JFLP) – 4<sup>th</sup> cohort (January 22 – July 2)

22 junior faculty selected; 7 two-hour sessions held monthly

## • Topics:

- Session #1: What you need to know to succeed & The unwritten rules for success; Preparing your Individual Development Plan (IDP)
- Session #2: Reviewing your IDP; Make the most of the mentor/mentee experience
- Session #3: Using an understanding of MBTI personality type to be more influential
- Session #4: Negotiating the building blocks of your career in academic medicine
- Session #5: Communicating well in a diverse environment
- Session #6: Ramping-up your scholarly productivity: Getting those papers out the door
- Session #7: Promoting yourself with success and good grace
- *Optional Sessions: Speak like a Pro I and II*
- *Optional luncheon sessions (2): “Personal Journeys of Faculty Leaders”*



**MARCH 12, 2015**

**4:00-6:00PM**

**POWERPOINT  
IMPROV**

**[CLICK HERE TO REGISTER!](#)**

Public speaking is a skill that can be learned. As academics, we must present our research effectively and with confidence. “PowerPoint Improv” is a no-risk, informal, and fun way to practice your presentation skills and learn new ones. In PowerPoint Improv, a.k.a. PowerPoint Karaoke, participants improvise a presentation to 5-10 slides they have never seen before! The unfamiliarity with the slides frees the presenter (and the audience) from any expectations of expertise on the topic. The presenter can then focus on presentation style, mental agility, mannerisms, and speech.

Improve your  
presentation  
skills!

No-risk, informal,  
and fun!

There’s no  
singing...unless  
you’re so moved!

Beverages &  
appetizers  
aplenty!

**OFFICE OF  
FACULTY  
DEVELOPMENT  
(OFD)**

*2024 E. Monument St.  
2nd Floor Auditorium  
(2-1002)*

# Powerpoint Improv/Karaoke

Participants improvise a presentation to 5-10 slides they have never seen before! The unfamiliarity with the slides frees the presenter (and the audience) from any expectations of expertise on the topic. The presenter can then focus on presentation style, mental agility, mannerisms, and speech.

# Writing Accountability Groups (WAGs)

**Ongoing! >50 WAGs across campuses**

(WAG #1: Bayview campus: September, 2013- present)

## Facilitator:

**Kim Skarupski, PhD, MPH**

*Assistant Dean, Office of Faculty Dev.*

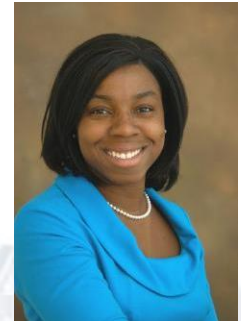
- A WAG is an active writing group that meets weekly for a 10-week block
- Ultimately, peer-facilitated
- Follows a strict agenda:
  - 15 minutes of updates
  - 30 minutes of writing
  - 15 minutes of reporting and wrap-up
- Participants must commit to at least 7 of the 10 sessions
- Limited to 4-8 members
- *Bonus: Participants receive the “How to Write a Lot” book*
- *Bonus: Dr. Cathy DeAngelis has volunteered to edit WAG participants’ manuscripts*



Alicia Arbaje, Ger.



Durga Roy, Psych.



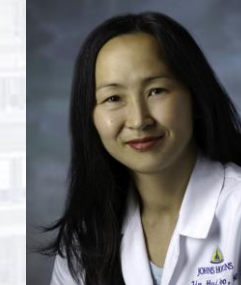
Shari Lawson, OB/GYN



Emily Evers, OB/GYN



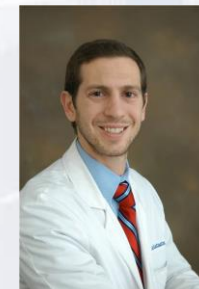
Jessica Peirce, Psych.



Jin Hui Joo, Psych.



Michelle Eakin, Pulmon.



Panagis Galiatsatos, IM



# K Investigator Groups (OFD & ICTR collaboration)

- **Pre-KIGs (Pre-K Investigator Groups)** - for faculty who are writing/planning to write a K application
- **CRIGs (Clinical Research Investigator Groups)** - for K awardees conducting clinical research
- **BRIGs (Basic Research Investigator Groups)** - for K awardees conducting basic research

Peer-facilitated, social support, networking opportunities to discuss and share information on various topics as relevant:

- \* developing a cohesive research plan
- \* writing the research progress reports
- \* sharing research resources
- \* building a mentoring team
- \* preparing for the R application
- \* getting publications out the door
- \* responding to grant reviewers
- \* hiring a Research Assistant
- \* identifying other funding
- \* practicing work-life integration
- \* IRB issues
- \* getting promoted

# Other OFD Services

## The Myers Briggs Type Indicator

**(MBTI)** – Yousem & Skarupski  
-understand your personality preferences to maximize work performance (individual or group sessions)

## Counseling:

- academic career
- work-life integration

New Director Onboarding - Rand

## Faculty Exit Interviews

~20% of exiting faculty complete exit interview (online or in-person)  
- 2011 Report (~100 SOM faculty exiting per year)

**New: PDAT (Professional Development Advisory Teams)! - Gauda**

**Under development: Pathways Series & Pathway Partners**

- Clinician Educator, Clinical Researcher, Clinical Program Builder, Basic Researcher, Clinician Innovator, Clinician with Distinction

# Collaboration with: the Professional Development Office (PDO)

*-Sessions for Postdocs, Fellows, and **Faculty**-*

- Grantcraft (3/3)
- Scientific Presentations (3/18)
- Writing for Publication (5/18)



Dr. Donna Vogel



Dr. Gaelle Kolb

[www.hopkinsmedicine.org/pdo](http://www.hopkinsmedicine.org/pdo)

Office of Faculty Development (OFD) &  
Talent Management and Organization Development (TMOD)

*Leadership Skill Building for Junior Faculty*

- Effective Meetings in Half the Time (2/11)
- Speak Like a Pro - The Basics (3/11)
- Speak like a Pro II - Videotaping (4/8)
- Flex Talk: Using an Understanding of MBTI Type to Create More Productive Outcomes (5/5)
- Becoming a Conflict Competent Leader (6/10)

<http://learning.jhu.edu>

<http://tmod.jhu.edu>

# *Faculty Connects*

- **Interactive faculty information database**
- **Purpose:**
  1. Allow us to provide you personalized professional development information
  2. Tailor our services to your demonstrated needs
- **Once you submit your brief profile (AKA *interest page*) and you can begin to use your personal *VIP page***

VIP Page Preview

Selected Contact: Estelle Gauda [\[Change\]](#)[Refresh Page](#)Welcome, Estelle - [Edit Profile](#) | [Log out](#)

## NETWORKING & CELEBRATING

You are invited to celebrate the opening of our new office at the...

### Office of Faculty Development

#### Open House

December 8, 2014 | 3:00-5:00 PM | 2024 East Monument Street, Suite 2-1000

Please RSVP to [OFD@jhmi.edu](mailto:OFD@jhmi.edu). We look forward to seeing you!

## TEACHING OPPORTUNITIES

### Recruiting Physician Preceptors

Participate in the Transition to the Wards course for second-year medical students, a unique and important component of the Genes to Society curriculum. Students will practice interviewing and examining hospitalized patients under the direct supervision of a trained clinician. This activity, which will run from Feb. 17 to March 5th, will greatly benefit from your voluntary participation. You can join for one or two sessions or join a group; you will be eligible for education credits through the IEE.



Dear Dr. Gauda,

Welcome to your VIP Page!

*This page is designed specifically for you* based on your interests and career development needs indicated on your faculty **INTEREST PAGE**. Please select **Edit Profile** on the task bar above to update your **INTEREST PAGE**. Then return to your VIP page to see our recommendations based on your stated interest.

Please do not hesitate to reach out to us using FACULTY CONNECTS or by direct email to [OFD@jhmi.edu](mailto:OFD@jhmi.edu). We look forward to connecting with you.

Janice E. Clements, PhD  
Vice Dean for Faculty

Estelle B. Gauda, MD  
Senior Associate Dean for Faculty Development

THE OFFICE OF FACULTY DEVELOPMENT | 2024 E Monument Street | Baltimore, MD 21287

THE JOHN'S HOPKINS UNIVERSITY SCHOOL OF MEDICINE | 733 North Broadway | Baltimore, MD 21205

Estelle, our recommendations for you based on your selected interests:

## HELPFUL LINKS

[Fall 2014 Faculty Events & Seminars](#)

[Faculty Resources Portal](#)

[The Office of Faculty Development](#)

[Faculty Policies](#)

[Human Resources: Benefits](#)

[Work-Life Integration](#)

## OFFICE OF DIVERSITY & CULTURAL COMPETENCE (OD&CC)

We welcome our diverse faculty! Please take a moment to [learn more about us](#) in the OD&CC. We are committed to meeting the needs of our diverse faculty, which includes persons of different races, ethnic groups, gender identities, sexual orientations, religious and spiritual beliefs, and disabilities.

Chiquita Collins, PhD  
Associate Dean for Diversity and Cultural

# How may we serve you?

*Please let us know your ideas and recommendations  
for faculty development!*

Kim Skarupski

[kskarupski@jhmi.edu](mailto:kskarupski@jhmi.edu)

410-502-5520 (direct)

410-925-0257 (cell)

[http://www.hopkinsmedicine.org/fac\\_development/](http://www.hopkinsmedicine.org/fac_development/)