APDEM
ASSOCIATION OF PROGRAM DIRECTORS IN ENDOCRINOLOGY • DIABETES • METABOLISM

APDEM Annual Meeting

Saturday, April 2, 2016 5:00 PM- 7:00 PM
Westin Boston Waterfront, Commonwealth Ballroom

Reception to follow from 7:00 – 8:00 PM.

APDEM
ASSOCIATION OF PROGRAM DIRECTORS IN ENDOCRINOLOGY • DIABETES • METABOLISM

2015-2016 APDEM Council Members

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APDEM Membership

Name	Organization Name	City	State
Dr. Stewart Gary Albert, MD	St Louis Univ Sch of Med	Saint Louis	MO
Dr. Jeanine Albu, MD	ST LUKES' ROOSEVELT HOSP CTR	New York	NY
Dr. Bogi Andersen, MD	Univ of CA - Irvine	Irvine	CA
Dr. Robert J Anderson, MD, MS	VA Med Ctr	Omaha	NE
Dr. Baha M Arafah, MD	Case Western Reserve Univ	Cleveland	OH
Dr. Richard Joseph Auchus, MD,PHD	University of Michigan	Ann Arbor	MI
Dr. Daniel Holland Bessesen, MD	Univ of CO Schl of Med	Aurora	CO
Dr. Beverly M K Biller, MD	Masschusetts General Hospital	Boston	MA
Dr. Nissa Blocher, MD	Einstein Endo Assoc	Philadelphia	PA
Dr. Jan M Bruder, MD	Univ of TX HSC at San Antonio	San Antonio	TX
Dr. James K Burks, MD	Texas Tech Univ Hlth Sci Ctr	Odessa	TX
Dr. Pauline M Camacho, MD	LOYOLA UNIV MED CTR	Maywood	IL
Dr. Marina Charitou	SUNY Stony Brook	East Setauket	NY
Dr. Nai-Wen Chi, MD,PHD	UNIV OF CA - SAN DIEGO	La Jolla	CA
Dr. Sara Nielsen Clark, MD	Albany Medical Center	Amsterdam	NY
Dr. Richard J Comi, MD	Dartmouth Hitchcock Med Ctr	Lebanon	NH
Dr. Odelia Cooper, MD	Cedars-Sinai Medical Center	Los Angeles	CA
Dr. Samuel Dagogo-Jack, MD,FRCP	Univ of Tennessee - Memphis	Memphis	TN
Dr. Kathryn McCrystal Dahir, MD	Vanderbilt Univ	Nashville	TN
Dr. Ann Danoff, MD	Philadelphia VAH	Philadelphia	PA
Dr. Chrysoula Dosiou, MD	Stanford Univ Med Center	Atherton	CA
Dr. Jean Marie Dostou, MD	Univ of N Carolina	Chapel Hill	NC
Dr. Betty M Drees, MD	Univ of MO - Kansas City	Overland Park	KS
Dr. Fred H Faas, MD	University of Arkansas for Medical Sciences	Little Rock	AR
Dr. Vivian A Fonseca, MD	Tulane University School of Medicine	New Orleans	LA
Dr. Carmel Maria Fratianni, MD	Southern IL Univ Sch of Med	Springfield	IL
Dr. Michael Scott German, MD	Univ of CA San Francisco	San Francisco	CA
Dr. Andrew George Gianoukakis, MD	Harbor UCLA Med Ctr	Torrance	CA
Dr. Matthew Philip Gilbert, DO, MPH	Univ of Vermont College of Med	Essex Junction	VT
Dr. Janice L Gilden, MD,BA,MS	RFUMS/Chicago Med Schl	North Chicago	IL
Dr. Whitney Sears Goldner, MD	Univ of Nebraska	Omaha	NE
Dr. Joaquin Gomez-Daspet, MD	University of South Florida	Tampa	FL
Dr. Geetha Gopalakrishnan, MD	Alpert Medical School of Brown University	East Providence	RI
Dr. Leland Graves, III, MD	UNIV OF KANSAS MED SCHL	Kansas City	KS
Dr. Ole-Petter Riksfjord Hamnvik, MBBChBAO,MMSc,MRCPI	Brigham and Women's Hospital	Winchester	MA

APDEM Membership

Name	Organization Name	City	State
Dr. MaryBeth Hodge, MD	Lahey Clinic	Burlington	MA
Dr. Rachel L Hopkins, MD	SUNY Upstate Medical Univ	Syracuse	NY
Dr. Stanley Hsia, MD	Charles R Drew Univ of Med	Los Angeles	CA
Dr. Steven Wai Ing, MD, MSCE	Ohio State University Med Ctr	Columbus	OH
Dr. Silvio E Inzucchi, MD	Yale School of Medicine	Stratford	CT
Dr. Sidika Emine Karakas, MD	Univ of CA - Davis	Davis	CA
Dr. Kurt Arthur Kennel, MD	Mayo Clinic	Rochester	MN
Dr. Matthew Ian Kim, MD	Brigham and Women's Hospital	Boston	MA
Dr. Kjersti Meyer Kirkeby, MD	Sutter Pacific Medical Center	San Francisco	CA
Dr. Paul Edward Knudson, MD	MCW Dept of Med	Milwaukee	WI
Dr. Peter Kopp, MD	Northwestern Univ	Chicago	IL
Dr. Salini Chellappan Kumar, MD	Nassau Univ Med Ctr	Syosset	NY
Dr. Lilamani Romayne Goonetilleke Kurukulasuriya, MD	UNIV OF MO - COLUMBIA	Columbia	MO
Dr. Sharon Wu Lahiri, MD	Henry Ford Health System	Birmingham	MI
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Dr. Matthew Jason Levine, MD, FACE	Scripps Clinic	La Jolla	CA
Dr. Steven N Levine, MD	LA State Univ Health Sciences Center	Shreveport	LA
Dr. David Charles Lieb, MD	Eastern Virginia Med School	Norfolk	VA
Dr. Sara E Lubitz, MD	Robert Wood Johnson Medical School	Westfield	NJ
Dr. Alan Ona Malabanan, MD	Beth Israel Deaconess Medical Center	Boston	MA
Dr. Susan Jennifer Mandel, MD,MPH	Perelman Schl of Med, Univ of Pennsylvania	Ardmore	PA
Dr. James Marion May, MD	Vanderbilt University	Nashville	TN
Dr. Christopher Rolland McCartney, MD	Univ of VA Health System	Charlottesville	VA
Dr. Shon Edward Meek, PHD,MD	Mayo Clinic-Jacksonville	Jacksonville	FL
Dr. Stasia Louise Miaskiewicz, FACP,MD	Allegheny General Hospital	Pittsburgh	PA
Dr. Farah Hena Morgan, MD	Cooper University Health Care	Berlin	NJ
Dr. Wolali Akua-Sabia Odonkor, MD	Howard Univ Hosp	Laurel	MD
Dr. Omolola Bolaji Olajide, MBBS	Marshall University School of Medicine	Huntington	WV
Dr. Leonid Poretsky, MD	Lenox Hill Hospital	New York	NY
Dr. J. Bruce Redmon, MD	Univ of MN Med Sch	Minneapolis	MN
Dr. L Raymond Reynolds, MD	Univ of Kentucky Medical Ctr	Lexington	KY
Dr. Paris Roach, MD	INDIANA UNIV SCHL OF MED	Indianapolis	IN
Dr. Mary Denise Ruppe, MD	The Methodist Hospital	Houston	TX
Dr. Joshua David Safer, MD	Boston Univ Schl of Med	Boston	MA
Dr. Roberto Salvatori, MD	Johns Hopkins Univ Sch of Med	Baltimore	MD

APDEM Membership

Name	Organization Name	City	State
Dr. Susan Leanne Samson, MD,PHD	Baylor College of Med	Houston	TX
Dr. Pamela Rose Schroeder, MD,PHD	Union Mem Hosp	Baltimore	MD
Dr. Beejal Ashok Shah, MD	Phoenix VA Healthcare Sys	Phoenix	AZ
Dr. Amal A Shibli-Rahhal, MD	Univ of Iowa Hosp and Clinics	Iowa City	IA
Dr. Debra L Simmons, MD,MS	University of Utah	Salt Lake City	UT
Dr. Barbara Simon, MD, FACE	Drexel Univ College of Medicine	Philadelphia	PA
Dr. Elias Said Siraj, MD	Temple Univ Hosp	Philadelphia	PA
Dr. Monica C Skarulis, MD	NIH	Bethesda	MD
Dr. Maja Stefanovic-Racic, MD,PHD	Univ of Pittsburgh	Pittsburgh	PA
Dr. Martin I Surks, MD	Montefiore Med Ctr	Bronx	NY
Dr. Vin Tangpricha, MD,PHD	Emory Univ Schl of Med	Atlanta	GA
Dr. Mira Sofia Tiglao Torres, MD	Univ of Massachusetts Medical School	Worcester	MA
Dr. Dace Lilliana Trence, MD	Univ of WA Medical Ctr	Seattle	WA
Dr. Mark Windell True, MD	San Antonio Uniformed Srvcs Hlth	San Antonio	TX
Dr. Tamara J Vokes, MD	Univ of Chicago	Chicago	IL
Dr. Kent R Wehmeier, MD	Univ of Florida - Jacksonville	Jacksonville	FL
Dr. Stuart Weinerman, MD	North Shore Univ Hosp	Great Neck	NY
Dr. Jane Eileen Weinreb, MD	VA Greater LA Hlthcare System	Los Angeles	CA
Dr. Irene A Weiss, MD	New York Med College	Scarsdale	NY
Dr. Stephen J Winters, MD	Univ of Louisville	Louisville	KY
Dr. Robert T Yanagisawa, MD	Mount Sinai School of Medicine	New York	NY
Dr. Abid Yaqub, MD	University of Cincinnati	Mason	OH

APDEM Draft
Minutes of the APDEM Annual Meeting at ENDO 2015
March 6, 2015 @ 5:00pm PDT

I. Welcome

Dr. Danoff welcomed the membership and asked new and first time Program Directors to introduce themselves.

II. **Approval of APDEM Annual Meetings**

The APDEM Annual Meeting minutes from the June 22, 2014 meeting were approved by the membership with no changes.

III. Treasurer & Membership Report

Dr. Geetha Gopalakrishnan shared that APDEM had a total of 226 members and $274,000 in assets at the close of 2014.

IV. **Supporters of APDEM**

APDEM's Sister Society supporters were warmly thanked for their continued support. Representatives from each supporting organization included:
American Association of Clinical Endocrinologists – Dr. Hossein Gharib
American Thyroid Association – Dr. Robert Smallridge
Endocrine Society – Dr. Lisa Fish

V. **Update on the ESAP™ In-Training Examination (ESAP-ITE):**

Alan Dalkin, MD, Chair, Self-Assessment Committee, presented the demographics of programs and fellows participating in ESAP-ITE and the performance of the fellows taking the exam. He also discussed the difficulty of questions and noted that this was an area being reviewed and questions will be revised appropriately by the program committee. Performance reports were presented to the APDEM membership. Dr. Dalkin encouraged the APDEM membership to provide feedback on improvements to ESAP-ITE, so that it can continue to be a useful tool for Program Directors and their fellows.

VI. Next Accreditation System (NAS) Update:

Geetha Gopalakrishnan, MD, Chair, of the Next Accreditation System Committee presented the next steps for upcoming CLEAR visits to the APDEM membership. CLEAR visits are meant to observe the learning environment and ensure the training program is centered on patient safety and quality care. Dr. Gopalakrishnan discussed the six core areas that would be observed at institution CLER visit then opened the floor to questions from the audience. Dr. Gopalakrishnan also discussed the next steps for NAS. Dr. Gopalakrishnan shared that there will be an upcoming open ended simple questionnaire survey about the milestones from January 2014. The survey will address the evaluation tools developed by APDEM,

including how they translate to outcomes. This feedback will be shared with ABIM and ACGME.

VII. Fellows' Training Series

Graham McMahon, MD, discussed a new Fellows training series that will be developed under the guidance of the Endocrine Society's Clinical Endocrine Committee (CEEC) in partnership with APDEM. Development of these endocrine training modules will be based on APDEM's endocrine fellowship training curriculum. The series will cover all endocrine conditions and disorders. The first module will focus on the endocrine procedural assessment tools currently hosted on the Endocrine Society Center for Learning (education.endocrine.org) and are targeted to be in place for the upcoming academic year. The goal is to create a structure of repurposing content that will eventually be the standardization of how the modules are developed and streamlined.

VIII. MATCH "All-In" Update

The APDEM membership discussed, their views on 100% all-in Match for fellowship programs. The membership began the discussion and addressed some of the challenges, opportunities and constraints. Due to time limits the discussion was tabled for a later date.

IX. **Installation & Acknowledgement of Incoming and Outgoing Council Members**

Dr. Danoff presented an award plaque to outgoing APDEM Council members Ashok Balasubramanyam, MD, Whitney Goldner, MD, Geetha Gopalakrishnan, MD and Pamela Taxel MD, for their service.

In addition, Dr. Danoff warmly welcomed incoming Council members Andrew Gianoukakis, MD, Whitney Goldner, MD, Geetha Gopalakrishnan, MD President-Elect and Monica Skarulis, MD.

X. **Other Business**

There being no further business, the meeting was adjourned at 7:00 PM PDT.

APDEM
ASSOCIATION OF PROGRAM DIRECTORS IN ENDOCRINOLOGY • DIABETES • METABOLISM

To: APDEM Members

From: Christopher Rolland McCartney, MD, APDEM Secretary-Treasurer

Date: April 2, 2016

Re: Item 3: APDEM Business Report

Treasurer & Membership Report
Financial information for APDEM will be shared at the meeting. Membership trends will be provided, including strategies for building and maintaining memberships.

Potential change to APDEM Bylaws: Update to APDEM membership requirements
Later this year, APDEM Council will be undertaking a review of APDEM Bylaws in order to ensure that the document appropriately captures the current practices of APDEM business. Included in this review will be an exploration of APDEM membership eligibility requirements. To further support training programs, Council will be considering edits to the Bylaws that would allow membership to be applied to the training program instead of to the program director alone. Each program membership would allow for the designation of numerous contacts for the program: in addition to the program director, this could include associate program directors and program coordinators. The program director would remain the primary contact for the membership organization and would be the voting member for the program. This new structure may allow APDEM to better track and support the full scope of the training program in the future.

To help inform Council's discussions, APDEM members are encouraged to share feedback on this proposed construct through apdem@endocrine.org by April 31, 2016.

Once Council has proposed edits to the Bylaws, members will be provided with an opportunity to review the revision and vote on the edited Bylaws. A copy of the current APDEM Bylaws is included on page 67 of these materials.

APDEM Communications Policy
APDEM's purpose is to provide tools, resources, and networking opportunities to its members, their training programs and fellows-in-training. This includes serving as a conduit for communications from external organizations and individuals regarding opportunities that may benefit its stakeholders. APDEM has established the attached communications policy to provide consistent and transparent guidance regarding interactions with APDEM members, sister societies, fellows and the public.

Attachment:
1. APDEM Communications Policy

APDEM Communications Policy

APDEM's purpose is to provide tools, resources, and networking opportunities to its members, their training programs and fellows-in-training. This includes serving as a conduit for communications from external organizations and individuals regarding opportunities which may benefit its stakeholders. APDEM has established the following policy to provide consistent and transparent guidance regarding interactions with APDEM members, sister societies, fellows and the public.

APDEM periodically receives requests to notify members about events or other resources which may be of interest to its community, as well as job listings for employment for graduating fellows, faculty positions, or other employment opportunities.

Upon receipt of a communication or engagement request, staff will review the request according to the guidance outlined in this policy. Any questions will be addressed to the President or President-Elect as needed. Staff will also provide the President with a report of these requests during the monthly status call and will monitor frequency and the nature of the requests to determine if a policy update is required.

- **Event notifications**
  - APDEM's members and sponsoring organizations may request that a specific event notification be posted to the "Meetings and Events" area of APDEM.org. Event notifications posted on the APDEM website will be restricted to events offered/sponsored/co-sponsored by national organizations of specific relevance to Program Directors in their role as Educators (e.g., pedagogy-related events) or trainees (e.g., fellow-specific sessions at endocrinology-related national society meetings). APDEM will not advertise non-CME/for-profit conferences.
  - If requested, an event notification (as above) will be considered for inclusion in the APDEM Update, which will be released no more than once per month via MagnetMail. Only events judged to be of significant and widespread fellow and/or program director interest will be included in the APDEM update.
  - Members may share information about events of general interest with their colleagues via the members-only area of the website through the "Discussions" feature.
- **Resource notification**
  - APDEM's members and sponsoring organizations may request that resources or links to resources (such as educational material developed by sister societies) be posted on the APDEM website and/or featured in the monthly APDEM Update. Only resources that are both (a) offered/sponsored/co-sponsored by national endocrinology-related organizations and (b) judged to be of significant and widespread fellow and/or program director interest will be included in the APDEM update. APDEM will not advertise resources provided by pharmaceutical companies.
  - Members may choose to share resource information with their colleagues via the members-only area of the website through the "Resources" and "Discussions" features.

- **Job postings**
  - All requests for specific job postings will be directed to the job posting services of sponsoring organizations. Links to appropriate career services webpages will be located under the "Jobs" tab on APDEM.org.
- **Direct email** from APDEM@endocrine.org or via MagnetMail will be sent regarding time-sensitive APDEM business items which cannot be included in the APDEM Update.

Staff will also monitor the frequency of these communications to members in order to maintain a reasonable volume of messages to its members. Approved messages will be scheduled accordingly and the stakeholder notified as to the scheduled date of communication.

For the public, apdem.org will link to the list of accredited endocrinology training programs on acgme.org. For the purposes of networking and resource sharing, members may use the members-only area to communicate with current APDEM members. In order to protect the contact information of its members, APDEM does not sell or share its membership list. All communications will be sent through APDEM communication channels as outlined in this policy.

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To: APDEM Members

From: Ann Danoff, MD, APDEM President

Date: April 2, 2016

Re: Item 4: Reports from APDEM Sister Societies

To ensure comprehensive training of endocrinologists, APDEM works in partnership with leadership organizations within the field of endocrinology. These partnerships include collaborating on projects for use by programs directors and fellows, sharing news and resources from the field through the APDEM communication network, and providing feedback from the training community on national initiatives within endocrinology. APDEM thanks its partner societies for their continued support and commitment to APDEM and the training program community.

Members will hear updates from leadership of its partner societies, including:

American Association of Clinical Endocrinologists
Hossein Gharib, MD, MACP, MACE; Past President

American Diabetes Association
Robert E. Ratner, MD; Chief Scientific and Medical Officer

American Thyroid Association
Antonio Bianco, MD, PhD; President

Endocrine Society
Lisa H. Fish, MD; President

Pediatric Endocrine Society
Sally Radovic, MD; President

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To: APDEM Members

From: Susan J. Mandel, MD, ABIM Specialty Board, Endocrinology, Diabetes and Metabolism

Date: April 2, 2016

Re: Item 5: Update from ABIM

Dr. Mandel, member of the Specialty Board in Endocrinology, Diabetes and Metabolism at the American Board of Internal Medicine (ABIM), will provide an update from the ABIM.

Attachment:

1. ABIM MOC Update for APDEM slides

American Board of Internal Medicine®

ABIM's Maintenance of Certification Program update
APEDEM April 2 2016

Disclosure of ABIM Service: Susan J. Mandel, MD

- I serve on **ABIM's Endocrinology, Diabetes, & Metabolism Board.**
- To protect the integrity of certification, ABIM enforces strict confidentiality and ownership of exam content.
- As a member of **ABIM's Endocrinology, Diabetes, & Metabolism Board**, I agree to keep exam information confidential.
- As is true for any ABIM candidate who has taken an exam for certification, I have signed the Pledge of Honesty in which I have agreed to keep ABIM exam content confidential.
- ***No exam questions will be disclosed in my presentation.***

2

What Are the Current Requirements?

In general, in addition to **licensure** and **enrollment** prerequisites, the MOC program requires:

Every 2 Years (to be reported as participating in MOC):
Complete at least one MOC activity

Every 5 Years (to stay certified):
Earn 100 MOC Points, 20 of which must be medical knowledge

Every 10 Years (to stay certified):
Pass the MOC Exam for your certification(s)

3

Outline

- Recent MOC changes
- Assessment 2020
- Response from societies, diplomates
- Next steps
- Approved Quality Improvement (AQI)
- Procedural curriculum

4

Recent MOC Changes

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Recent MOC Changes

- ABIM expanded the types of CME that count for MOC and partnered with ACCME to create list of CME activities that count for MOC (ENDO 2016!)
  - List available at www.accme.org/MOClist
- Practice Assessment, Patient Safety and Patient Voice requirements **not required through 12/31/2018.**
  - Will not reinstate requirements until a better, more valuable experience for diplomates is available

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Recent MOC Changes

- Changed public reporting language to “participating in MOC.”
- MOC-enrollment fees frozen through at least 2017
- Diplomates in all ABIM subspecialties can **choose to maintain only those certifications relevant to their practices**.

7

Assessment 2020

- Goal: recommendations on what skills physicians will need in the future and how to assess those skills
- Task Force was made up of internal and external expert stakeholders, selected for the diverse backgrounds and objective viewpoints they would bring to the project.
- ABIM has implemented some Task Force recommendations and is getting feedback on others- NOT WAITING until 2020

8

Assessment 2020 Recommendations
released Sept 2015

1. Replace the 10-year MOC exam with more frequent, less burdensome assessments
2. Focus assessments on cognitive and technical skills
3. Recognize specialization

9

Feedback from:

Specialty Society A2020 Feedback

21 responses received from specialty societies and professional associations

- Survey to all diplomates in Dec 2015 with 8624 response (4.4%)

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Feedback themes

- Support for more flexible options for 10 year exam
  - Details needed-technology, site, low stakes vs. high stakes, frequency (2yr preferred)
  - Some still prefer 10 year exam
- Formative rather than summative with feedback
  - Align with CME activities
- Specialization recognized in modules
- Cost-effective, minimizing burden and true to practice

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Assessment Experience Should Reflect the "Real World"

- The exam should contain questions on subjects and diagnoses that come up frequently in daily practice.
- Physicians routinely utilize and refer to their own trusted resources when making a diagnosis. This should be acknowledged and allowed in the exam.
- With today's technology, the ability to take the exam in more convenient locations than a test center should be possible.

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Physicians want evidence

- Just as physicians are expected to provided evidence based care, MOC activities must be supported by evidence that they improve outcomes
- Challenge of research methodology, outcomes
- Preliminary data showing decreased costs, increased adherence to guidelines

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Simple, Relevant, Cost-Effective

- Many feel the purpose of MOC is unclear
  - Is it meant to identify poor-performers or improve the care provided by physicians?
- Participating in MOC should feel true to practice.
- Minimize the burden placed on physicians and ensure MOC requirements are worthwhile and support lifelong learning.

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Societies Want an Active Role

- Societies support and appreciate the concept of co-creation.
- Several have indicated interest in working with ABIM in support of a shift in the purpose of MOC from assessing to learning.
- Some societies have stated they should be responsible for determining any subspecialty criteria in MOC.

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4

Next steps:
Blueprint feedback: what you can do

- Insert screen shot or demo of how to do this

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Updated IM MOC Exam Blueprint

- Developed with physician input, the updated blueprint provides a greater level of detail than prior blueprints. EDM review is happening now!

Detailed Content Outline for the Internal Medicine MOC Exam

✓ – ***High Importance***: *Most exam questions will address topics in these categories* ✓ – ***Medium Importance***: *Some exam questions will address topics in these categories* ✗ – ***Low Importance***: *No exam questions will address topics in these categories*

ALLERGY/IMMUNOLOGY *(2% of exam)*	**Diagnosis**	**Testing**	**Treatment/ Care Decisions**	**Risk Assessment/ Prognosis/ Epidemiology**	**Pathophysiology/ Basic Science**
ANAPHYLAXIS *(<2% of exam)*					
Aspirin idiosyncrasy	✓	✗	✓	✓	✗
Stinging insect hypersensitivity	✓	✓	✓	✓	✓
Desensitization therapy	✓	✓	✓	✓	✓

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Subspecialty Blueprint Review

- Physicians will be able to access the tool from a link on their Physician home page on abim.org.
- Rate blueprint items based on the relative <u>frequency</u> and <u>importance</u> of the individual topic in practice, one blueprint section at a time.
- Complete as many sections as you like.

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Next steps

- ABIM needs to make a decision
- March 18 2016 urged by your subspecialty board
- Letter to ACP membership March 2016

We . . . recognize that the **internal medicine community is experiencing frustration based on a perceived lack of urgency** from ABIM to define a plan and implement further changes to the MOC program, specifically the secure examination. It has been **approximately 6 months since the release of ABIM's Assessment 2020 Task Force report**, and **ABIM has not yet communicated decisions or plans** about the report's recommendations regarding the future of the secure examination…We urged ABIM to develop a plan as quickly as possible about the future of knowledge assessment and the secure examination, and to **communicate more frequently about timelines and plans**. We asked ABIM to meet both of these objectives **by July 1, 2016** and . . .underscore the need for them to accelerate the momentum for reform and communicate additional changes.

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Approved Quality Improvement

- ABIM discussion about AQI for
  - PD role directing fellowship
  - PD or faculty supervised fellow QI projects

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New Endocrinology Procedural Requirements

developed in collaboration with APDEM

- ✓ FNA of the thyroid nodule (current)
- ✓ Thyroid ultrasound
- ✓ Insulin pump therapy
- ✓ Continuous glucose monitoring
- ✓ DXA scan interpretation

What this Means for Endocrinology Fellows

- New procedural competencies will be "in effect" AY 2016-2017
  - There is no numeric requirement; PDs will confirm at end of training (June 2018) have achieved competence in the appropriate set of procedures
- Certification Eligibility
  - Fellows graduating in 2017 will be evaluated by ABIM on thyroid aspiration biopsy
  - Fellows graduating in 2018 will be evaluated by ABIM on the new procedure group

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To: APDEM Members

From: Geetha Gopalakrishnan, MD, APDEM President-Elect

Date: April 2, 2016

Re: Item 6a: APDEM Curriculum Update

In November, APDEM Council approved additional updates to its curriculum for fellowship training. These updates include revising the curricular topics into action-oriented expectations of trainees (e.g., "Guide the evaluation for adrenocortical carcinoma, which may include hormonal evaluation and radiographic studies", "Determine when genetic testing is appropriate in the setting of familial hypercortisolism"), reorganizing topics to more closely align with ABIM exam content areas, supplement reference lists, and standardize and simplify the structure across all sections. Sample *draft* sections are attached for the members' information.

Through work with a contracted medical editor, APDEM representatives are in the process of revising each section, which will then be peer-reviewed by all representatives and additional Council members. In order to ensure that the curriculum meets the needs of trainees, the curriculum will also be reviewed by current and recently graduated fellows.

APDEM anticipates the curriculum will be finalized before the start of the next academic year and will be publicly available on apdem.org. Once finalized, the Curriculum will serve as a foundational outline that can help organize existing or new educational materials (e.g., content from sister societies, members). If desired, the Curriculum can also be expanded to include training curriculum for residency and undergraduate medical education.

Attachments:

1. *Draft* APDEM Curriculum: Adrenal
2. *Draft* APDEM Curriculum: Bone and Mineral Metabolism

ADRENAL

INTRODUCTION

A complete understanding of normal physiology and the pathologic diseases affecting the adrenal gland is essential for the endocrinologist and should be part of education curriculum and training for fellows. Adrenal disorders can originate at various functional levels (eg, hypothalamus, pituitary, adrenal) and be caused by genetic or environmental factors. Adrenal disorders may be associated with overproduction or underproduction of adrenal hormones and/or nonfunctioning (benign or malignant) neoplastic lesions. Comprehensive appreciation of adrenal pathophysiology also includes recognizing how adrenal dysfunction affects other body systems, including the potential effects on endocrine and nonendocrine systems (eg, metabolic, musculoskeletal, dermatologic, cardiovascular), some of which may be life-threatening. Fellows should be competent in the diagnosis and treatment of adrenal disorders.

MEDICAL KNOWLEDGE

Fellows must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (eg, epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

Topic	Fundamental	Advanced
BASIC PHYSIOLOGIC PRINCIPLES, ADRENAL BIOLOGY		
Explain adrenal gland embryology, anatomy, and zonation.		
Describe steroid biosynthetic pathways, including specific enzymatic steps.		
Describe steroid metabolism.		
Explain regulation of the hypothalamic-pituitary-adrenal axis, including normal patterns of corticotropin and cortisol secretion.		
Describe the renin-angiotensin-aldosterone system and regulation of mineralocorticoid secretion.		
Explain regulation of adrenal sex steroid production, secretion, and extraglandular metabolism of adrenal sex steroids.		
Describe catecholamine biosynthesis, secretion, and metabolism.		
List factors that affect measured levels of adrenal regulatory hormones (eg, corticotropin, renin), steroids, and catecholamines and their metabolites (eg, in plasma, urine, and saliva).		
Explain the molecular and cellular mechanisms, as well as physiologic effects, of glucocorticoids, mineralocorticoids, sex steroids, and catecholamines.		
GLUCOCORTICOIDS		
Cushing Syndrome		
Clinical Presentation		
Summarize the symptoms and signs of Cushing syndrome resulting from chronic exposure to excess glucocorticoid, including progressive obesity, dermatologic manifestations, menstrual irregularities, signs of adrenal androgen excess, proximal muscle wasting and weakness, bone loss, glucose intolerance, cardiovascular disease, thromboembolic events,		

neuropsychological changes and impaired cognition, and infection and impaired immune function.		
Differential Diagnosis (Adrenal vs Ectopic vs Pituitary vs Exogenous vs Physiologic)		
Perform the differential diagnosis of Cushing syndrome to determine the source of cortisol excess, which could be adrenal, ectopic, or pituitary.		
Diagnostic Tests		
Select and interpret results from appropriate case-detection (screening) tests, which may include measurement of 24-hour urinary cortisol excretion, late-night salivary or serum cortisol measurement, or 1-mg overnight dexamethasone suppression.		
Select and interpret results from appropriate diagnostic tests to determine the source of glucocorticoid excess, which may include measurement of corticotropin, inferior petrosal sinus sampling, diurnal serum cortisol measurement, corticotropin-releasing hormone stimulation testing, vasopressin stimulation testing, and/or dexamethasone suppression testing (with or without corticotropin-releasing hormone).		
Discuss the diagnostic challenge of glucocorticoid excess in the setting of pregnancy.		
Determine when genetic testing is appropriate in the setting of familial hypercortisolism.		
Select the appropriate imaging modality on the basis of the biochemical profile.		
Exogenous Cushing Syndrome (Iatrogenic or Factitious)		
Obtain a careful history to evaluate for exogenous glucocorticoid intake as the source of hypercortisolism (eg, prescribed glucocorticoid, surreptitious intake of glucocorticoid, medications that decrease glucocorticoid metabolism).		
Pseudo-Cushing Syndrome		
Distinguish physiologic hypercortisolism that can occur in disorders other than Cushing syndrome (eg, in patients with physical or psychological stress, severe obesity, malnutrition, or chronic alcoholism) from Cushing syndrome itself.		
Adrenal Neoplasm		
Evaluate for adrenal adenoma, carcinoma, and micronodular and macronodular hyperplasia.		
Ectopic Corticotropin/Corticotropin-Releasing Hormone		
Evaluate for tumors associated with the ectopic ACTH (corticotropin) syndrome or the ectopic CRH (corticotropin-releasing hormone) syndrome.		
Treatment		
Depending on the etiology of Cushing syndrome, recommend the best initial treatment, which may include cessation of exogenous glucocorticoid, surgical excision of tumors, unilateral or bilateral adrenalectomy, or in certain circumstances, medical therapy.		
Recommend appropriate long-term management depending on the initial treatment strategy and resolution of signs and symptoms, which may include postoperative glucocorticoid therapy, mineralocorticoid replacement, medical therapy, as well as therapy for associated complications (osteoporosis, etc.)		
Adrenal Insufficiency		
Primary Adrenal Insufficiency		
Summarize the symptoms and signs of acute adrenal crisis, including shock, abdominal tenderness, fever, weight loss, and electrolyte abnormalities.		
Summarize the symptoms and signs of chronic primary adrenal insufficiency, including signs of glucocorticoid, mineralocorticoid, and androgen		

deficiencies; chronic malaise; lassitude; fatigue; generalized weakness; anorexia; weight loss; gastrointestinal complaints; psychiatric manifestations; hypotension; hyperpigmentation; vitiligo; electrolyte abnormalities; and hypoglycemia.		
Recognize that adrenal insufficiency can be a sign of adrenoleukodystrophy.		
Recommend treatment approaches for acute adrenal crisis and chronic adrenal insufficiency, which includes choice of glucocorticoid and the appropriate regimen and mineralocorticoid replacement.		
Secondary/Tertiary Adrenal Insufficiency		
Summarize the symptoms and signs of secondary adrenal insufficiency, which are similar to those of primary adrenal insufficiency (except for the absence of hyperpigmentation, dehydration, and hyperkalemia) and which may include severe headache and/or visual disturbances and/or cranial nerve abnormalities.		
Evaluate for other pituitary hormone deficiencies in patients with secondary adrenal insufficiency.		
Recommend treatment approaches for secondary adrenal insufficiency depending on etiology.		
Glucocorticoid Therapy		
Describe glucocorticoid and mineralocorticoid efficacy of pharmacologically available agents (hydrocortisone, prednisone, dexamethasone, etc).		
Guide appropriate tapering regimens for cessation of glucocorticoids.		
Diagnose steroid withdrawal syndrome.		
Stress Doses		
Recognize the importance of medical alert identification.		
Outline sick-day protocols with increased oral dosages of glucocorticoid.		
Guide the use of parenterally administered glucocorticoids for adrenal crisis or surgical procedures.		
Glucocorticoid Resistance		
Summarize the symptoms and signs of glucocorticoid resistance, including hypertension and hypokalemic alkalosis, hirsutism, male-pattern baldness, menstrual abnormalities and infertility in females, isosexual precocious puberty, and abnormal spermatogenesis and infertility in males.		
Recommend management approaches for glucocorticoid resistance.		
MINERALOCORTICOIDS		
Hyperaldosteronism		
Primary Hyperaldosteronism		
Summarize the symptoms and signs of primary aldosteronism, including hypertension, variable presence of hypokalemia, and lack of edema.		
Distinguish between the most common subtypes of primary hyperaldosteronism—aldosterone-producing adenomas and bilateral adrenal hyperplasia.		
Pseudohyperaldosteronism		
Differentiate among other causes of hypertension and hypokalemia such as Liddle syndrome, licorice ingestion, 17α-hydroxylase deficiency/17,20-lyase deficiency, and 11β-hydroxylase deficiency.		
Diagnostic Tests		
Recommend case-detection testing in appropriate patients (those with hypertension and hypokalemia, severe hypertension or drug-resistant hypertension, hypertension with adrenal incidentaloma, hypertension and family history of early-onset hypertension, all hypertensive first-degree relatives of patients with primary aldosteronism).		

Explain the initial case-detection approach (plasma aldosterone concentration, plasma renin activity, and ratio of plasma aldosterone concentration to plasma renin activity).		
Differentiate among the tests used for diagnosis confirmation (saline infusion test, oral sodium loading, fludrocortisone suppression test, captopril challenge test).		
Describe the tests used for subtype diagnosis, including adrenal computed tomography and adrenal venous sampling.		
Determine when genetic testing is appropriate in the setting of familial hyperaldosteronism.		
Treatment		
Recommend treatment strategies for hyperaldosteronism, which may include laparoscopic adrenalectomy, mineralocorticoid receptor antagonist therapy, and potassium-sparing diuretics.		
Manage hyperaldosteronism in the context of pregnancy.		
Hypoaldosteronism		
Summarize the clinical manifestations of hypoaldosteronism, including hyperkalemia and mild hyperchloremic metabolic acidosis.		
Differentiate among disorders of reduced aldosterone production (eg, hyporeninemic hypoaldosteronism, primary adrenal insufficiency, congenital isolated hypoaldosteronism, pseudohypoaldosteronism type 2) vs aldosterone resistance (eg, potassium-sparing diuretics, antibiotics, pseudohypoaldosteronism type 1).		
Recommend appropriate diagnostic testing, including measurement of plasma renin activity, serum aldosterone, and serum cortisol after administration of a loop diuretic.		
Recommend treatment strategies for hypoaldosteronism, which may include mineralocorticoid therapy and glucocorticoid therapy, depending on the cause of the hormone deficiency.		
ADRENAL ANDROGENS		
Congenital Adrenal Hyperplasia		
Differentiate among the 3 main phenotypes of 21-hydroxylase deficiency: classic salt-losing, classic non–salt-losing, and nonclassic (late-onset).		
Explain the genetics of 21-hydroxylase deficiency due to *CYP21A* mutations.		
Differentiate among the less common forms of congenital adrenal hyperplasia due to 11β-hydroxylase deficiency, 17α-hydroxylase deficiency/17,20-lyase deficiency, and 3β-hydroxysteroid dehydrogenase deficiency.		
Guide the diagnosis of congenital adrenal hyperplasia with measurement of 17-hydroxyprogesterone and electrolytes, as well as 11-deoxycortisol, 17-hydroxypregnenolone, cortisol, androstenedione, and dehydroepiandrosterone to define the metabolic defect.		
Appropriately recommend genetic testing and genetic counseling.		
Recommend appropriate treatment for congenital adrenal hyperplasia (in pregnant and nonpregnant individuals), which includes providing adequate glucocorticoid to reduce hyperandrogenemia and excessive corticotropin-releasing hormone and corticotropin secretion, as well as mineralocorticoid when indicated..		
ADRENAL INCIDENTALOMA		
Recall the prevalence of adrenal masses identified incidentally on imaging performed for other reasons.		

Radiographic Appearance		
Identify the imaging phenotype of benign adenomas, pheochromocytomas, adrenocortical carcinomas, and adrenal metastases, taking into account size, shape, computed tomography attenuation value (Hounsfield units), rapidity of contrast washout, signal intensity, and homogeneous or inhomogeneous density.		
Diagnostic Studies		
Guide the appropriate evaluation for an adrenal incidentaloma, which may include assessment for hormonal secretion (eg, plasma fractionated metanephrines), dexamethasone suppression testing, measurement of plasma aldosterone concentration and plasma renin activity, and fine-needle aspiration biopsy.		
ADRENAL MEDULLA		
Pheochromocytoma		
Clinical Presentation		
Summarize the signs and symptoms of catecholamine-secreting tumors, which include sustained or paroxysmal hypertension, episodic headaches, sweating, and tachycardia.		
Diagnostic Tests		
List indications for testing (eg, patients with classic signs and symptoms, hyperadrenergic spells, early-onset hypertension, resistant hypertension, adrenal incidentaloma, family history of a syndrome that predisposes to catecholamine-secreting tumors).		
Evaluate for pheochromocytoma by biochemical confirmation of catecholamine hypersecretion, followed by localization of the tumor with imaging studies.		
Identify which medications can interfere with interpretation of biochemical testing for catecholamine-secreting tumors and should be discontinued before diagnostic evaluation.		
Select and interpret results from biochemical tests, which may include fractionated catecholamines and metanephrines in a 24-hour urine collection and plasma fractionated metanephrines.		
Apply available imaging techniques appropriately to localize pheochromocytoma, including computed tomography, magnetic resonance imaging, meta-iodobenzylguanidine scintigraphy, and fludeoxyglucose positron emission tomography.		
Recommend genetic testing and genetic counseling in appropriate clinical situations.		
Treatment		
Guide treatment of pheochromocytoma, including medical preparation for surgery with α- and β-adrenergic blockade and adrenalectomy.		
Manage acute hypertensive crises.		
Manage pheochromocytoma in the context of pregnancy.		
Familial Disorders Associated With Pheochromocytoma		
Diagnose and manage familial disorders associated with pheochromocytoma such as von Hippel–Lindau syndrome, multiple endocrine neoplasia type 2, and neurofibromatosis type 1.		
Recommend genetic testing and genetic counseling in appropriate clinical situations.		
Extra-Adrenal Catecholamine-Secreting Paragangliomas		
Distinguish pheochromocytoma from catecholamine-secreting paragangliomas.		

Evaluate for catecholamine-secreting paragangliomas by biochemical confirmation of catecholamine hypersecretion, followed by localization of the tumor with imaging studies.		
Diagnose and manage familial disorders associated with paragangliomas such as familial paraganglioma (*SDH* mutations) and rarely neurofibromatosis type 1, multiple endocrine neoplasia type 2, von Hippel–Lindau syndrome, and Carney-Stratakis dyad.		
Recommend genetic testing and genetic counseling in appropriate clinical situations.		
ADRENAL CANCER		
Distinguish adrenocortical adenomas from adrenocortical carcinoma.		
Identify hereditary cancer syndromes associated with adrenocortical cancer, including Li-Fraumeni syndrome, Beckwith-Wiedemann syndrome, and multiple endocrine neoplasia type 1.		
Summarize the symptoms and signs of adrenocortical carcinoma, including clinical syndromes of hormone excess (eg, Cushing syndrome, virilization) and manifestations related to tumor growth (eg, abdominal or flank pain).		
Guide the evaluation for adrenocortical carcinoma, which may include hormonal evaluation and radiographic studies.		
Describe various staging systems used for adrenocortical carcinoma.		
Recommend treatment of adrenocortical carcinoma, which includes initial surgery and possibly adjuvant medical and/or radiation therapy.		
ADRENAL IMAGING AND PROCEDURES		
Imaging		
Differentiate among imaging techniques for adrenal disease, including computed tomography, magnetic resonance imaging, meta-iodobenzylguanidine scintigraphy, indium-labeled pentetreotide scintigraphy, and fludeoxyglucose positron emission tomography.		
Interpret imaging phenotype to predict the histologic type of adrenal disease.		
Benign Adenomas		
Identify the imaging characteristics of benign adrenal adenomas, including round shape, homogenous density, diameter <4 cm, unilateral location, low unenhanced computed tomography attenuation values (<10 Hounsfield units), rapid contrast medium washout, and isointensity with the liver on T1- and T2-weighted magnetic resonance imaging.		
Pheochromocytomas		
Identify the imaging characteristics of pheochromocytomas, including variable size, sometimes bilateral location, high unenhanced computed tomography attenuation values (>20 Hounsfield units), increased vascularity, delayed contrast medium washout, high signal intensity on T2-weighted magnetic resonance imaging, and cystic and hemorrhagic changes.		
Adrenocortical carcinoma		
Identify the imaging characteristics of adrenocortical carcinoma, including irregular shape, inhomogeneous density, tumor calcification, diameter >4 cm, unilateral location, high unenhanced computed tomography attenuation values (>20 Hounsfield units), delayed contrast medium washout, hypointensity compared with liver on T1-weighted magnetic resonance imaging and intermediate signal intensity on T2-weighted magnetic resonance imaging, evidence of local invasion or metastases,		

and elevated standardized uptake value on fludeoxyglucose positron emission tomography.		
Adrenal metastases		
Identify the imaging characteristics of adrenal metastases, including irregular shape, inhomogeneous density, tendency to be bilateral, high unenhanced computed tomography attenuation values (>20 Hounsfield units), delayed contrast medium washout, isointensity with the liver (or slightly less intense) on T1- and T2-weighted magnetic resonance imaging, and elevated standardized uptake value on fludeoxyglucose positron emission tomography.		
Procedures		
List indications for computed tomography–guided adrenal fine-needle aspiration biopsy.		
List indications for adrenal venous sampling for aldosterone.		
Interpret results from adrenal venous sampling (with or without cosyntropin stimulation).		

TEACHING METHODS AND EVALUATION

To be determined…

SUGGESTED READING

Asterisks denote references that are designated for residents, students, or endocrine fellows early in their training. While some of the references are organized under "Diagnosis" and "Management" subheadings, please note there may be overlapping content.

GENERAL READING, PHYSIOLOGY, EPIDEMIOLOGY	
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*Jameson JL, De Groot LJ, de Kretser DM, Giudice LC, Grossman AB, Melmed S, Potts JT Jr, Weir GC, eds. *Endocrinology: Adult and Pediatric*. 7th ed. Philadelphia, PA: Elsevier Saunders; 2010.	Textbook
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GLUCOCORTICOIDS

Cushing Syndrome: Diagnosis

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BONE AND MINERAL METABOLISM

INTRODUCTION

Knowledge and understanding of bone biology, genetics, and disease mechanisms have greatly expanded in the past decade. Osteoporosis is the most common metabolic bone disease in the United States and it has been the subject of intense focus given that it is a major public health problem. Its prevalence will continue to increase as the population ages. Screening, imaging methods, and therapy for osteoporosis should be part of education curriculum and training for fellows. Other disorders of mineral homeostasis such as primary hyperparathyroidism, hypoparathyroidism, vitamin D–related disorders, Paget disease, disorders of phosphate homeostasis, chronic kidney disease, and nephrolithiasis, as well as cancer and bone health issues, are also important areas of learning for fellows. Finally, curriculum should include developmental bone disorders such as osteogenesis imperfecta, fibrous dysplasia, and various chondrodysplasias. Fellows should be competent in the diagnosis and treatment of disorders of bone and mineral metabolism.

MEDICAL KNOWLEDGE

Fellows must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (eg, epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

Topic	Fundamental	Advanced
BASIC PHYSIOLOGIC PRINCIPLES, BONE BIOLOGY		
Explain the normal mineral homeostasis of calcium, phosphorus, and magnesium and of the calcium-regulating hormones (parathyroid hormone, parathyroid hormone–related protein, calcitonin, 25-hydroxyvitamin D, 1,25-dihydroxyvitamin D, and fibroblast growth factor 23).		
Describe normal skeletal homeostasis, including anatomy, structure, bone remodeling unit, and the local and systemic hormones and factors that regulate skeletal homeostasis.		
Describe the interrelationships between mineral and skeletal homeostasis, including the role and function of the principal cells involved in bone remodeling (osteoblasts, osteoclasts, and osteocytes).		
Explain the signaling pathways within the bone marrow microenvironment such as RANK-L/OPG and the Wnt-signaling pathway and its role in bone formation.		
Discuss alterations in mineral homeostasis during physiologic states such as puberty, pregnancy, lactation, and aging.		
HYPERCALCEMIA		
Parathyroid Hormone–Mediated Hypercalcemia		
Distinguish between parathyroid hormone–mediated and nonparathyroid hormone–mediated hypercalcemia.		
Select parathyroid hormone assays to diagnose primary hyperparathyroidism vs nonparathyroid hormone–mediated hypercalcemia (ie, humoral hypercalcemia of malignancy, hyperabsorptive hypercalcemia due to granulomatous disorders, etc) and interpret results from these		

assays.		
Primary Hyperparathyroidism		
Diagnosis		
Diagnose primary hyperparathyroidism, which includes the measurement of serum calcium and parathyroid hormone.		
Explain the role of genetic testing in patients with primary hyperparathyroidism and determine when ordering genetic testing is appropriate.		
Treatment Guidelines		
Discuss the decision regarding surgical vs medical management and list the current criteria for surgical intervention in asymptomatic primary hyperparathyroidism.		
Medical and Surgical Therapy		
Explain surgical approaches (eg, minimally invasive procedure), appropriate preoperative imaging and evaluation, and potential postoperative complications (eg, hungry bone syndrome and postoperative hypoparathyroidism).		
Observe, if possible, surgery performed by a competent head and neck or endocrine surgeon.		
Recommend medical therapy or conservative observation, medications (eg, calcimimetics), and appropriate monitoring (including renal function and bone health) in patients with primary hyperparathyroidism.		
Manage the care of patients with hypercalcemia in the setting of suppressed parathyroid hormone (eg, hypercalcemia of malignancy or hyperabsorptive hypercalcemia due to granulomatous disorders).		
Natural History		
Discuss the gastrointestinal, neuromuscular, renal, and psychological symptoms and signs related to hypercalcemia.		
Familial Hypocalciuric Hypercalcemia		
Distinguish sporadic primary hyperparathyroidism from familial hypocalciuric hypercalcemia.		
Manage familial hypocalciuric hypercalcemia.		
Lithium-Induced		
Diagnose and manage lithium-induced hyperparathyroidism.		
Nonparathyroid Hormone–Mediated Hypercalcemia		
Hypercalcemia of Malignancy		
Identify the clinical and biochemical profile of a patient with possible parathyroid cancer.		
Diagnose and manage parathyroid hormone–related protein–mediated hypercalcemia of malignancy.		
Diagnose and manage hypercalcemia related to destructive bone metastases such as breast cancer and multiple myeloma.		
Diagnose and manage vitamin D–mediated (25-hydroxyvitamin D or 1,25-dihydroxyvitamin D) hypercalcemia of malignancy.		
Milk-Alkali Syndrome		
Diagnose and manage milk-alkali syndrome.		
Sarcoidosis, Tuberculosis, and Other Granulomatous Diseases		
Diagnose and manage hypercalcemia related to sarcoidosis, tuberculosis, and other granulomatous diseases.		
Vitamin D Intoxication		
Diagnose and manage hypervitaminosis D–associated hypercalcemia.		
Post-Rhabdomyolysis		
Diagnose and manage rhabdomyolysis-associated hypercalcemia.		

Adynamic Bone Disease		
Diagnose and manage hypercalcemia due to adynamic bone disease such as severe chronic kidney disease and secondary hyperparathyroidism.		
Myeloma		
Diagnose and manage hypercalcemia due to myeloma.		
Acute Adrenal Insufficiency		
Diagnose and manage hypercalcemia due to acute adrenal insufficiency.		
Vitamin A Intoxication		
Diagnose and manage hypercalcemia due to vitamin A toxicity.		
HYPOCALCEMIA		
Hypoparathyroidism		
Diagnose and manage surgical hypoparathyroidism that can occur after thyroid, parathyroid, or radical neck surgery for head and neck cancer.		
Diagnose and manage acquired hypoparathyroidism due to autoimmune disease.		
Diagnose and manage hypoparathyroidism due to activating mutations in the gene encoding the calcium-sensing receptor (*CASR*).		
Diagnose and manage hypoparathyroidism due to storage or infiltrative disorders of the parathyroid glands (eg, hemochromatosis, Wilson disease, granulomas, or metastatic cancer).		
Parathyroid Hormone Resistance		
Diagnose and manage pseudohypoparathyroidism.		
Hypomagnesemia		
Diagnose and manage magnesium depletion leading to hypocalcemia.		
Hyperphosphatemia		
Diagnose and manage hypocalcemia due to increased phosphate intake in patients with impaired renal excretion or in acute renal failure.		
Diagnose and manage acute hypocalcemia due to excess tissue breakdown (eg, rhabdomyolysis, tumor lysis).		
Pancreatitis		
Diagnose and manage hypocalcemia in patients with acute pancreatitis in whom it is associated with precipitation of calcium soaps in the abdominal cavity.		
Hungry Bone Syndrome		
Diagnose and manage severe and prolonged postoperative hypocalcemia (ie, hungry bone syndrome).		
Osteoblastic Metastases		
Diagnose and manage hypocalcemia in the setting of osteoblastic metastases.		
Drugs		
Identify drugs that can cause hypocalcemia such as calcium chelators, bisphosphonates, denosumab, cinacalcet, chemotherapy (especially cisplatin), foscarnet, and excess fluoride.		
OSTEOPOROSIS		
Clinical Presentation		
Describe the clinical manifestations of osteoporosis in postmenopausal women.		
Describe the clinical manifestations of osteoporosis in men.		

Describe the clinical manifestations of glucocorticoid-induced osteoporosis.		
Describe the clinical manifestations of posttransplant-associated osteoporosis.		
Describe the clinical manifestations of osteoporosis due to malabsorption from Celiac disease.		
Diagnosis		
Define osteoporosis and describe the associated diagnostic criteria.		
Evaluate for secondary forms of osteoporosis, including hypogonadism, vitamin D insufficiency or deficiency, genetic or congenital disorders, hyperparathyroidism, glucocorticoid excess, hyperthyroidism, and transplant bone disease.		
Identify dual-energy x-ray absorptiometry as the criterion standard for the evaluation of bone mineral density.		
Discuss issues of quality control, precision, and interpretation of dual-energy x-ray absorptiometry measurements, in terms of criteria for diagnosis of osteopenia and osteoporosis, as well as in interpretation of longitudinal changes.		
Describe alternative sites to measure bone mineral density such as the forearm, as well as indications for lateral vertebral assessment to evaluate for potential vertebral fractures.		
Describe the role of quantitative computed tomography in the evaluation of osteoporosis and recommend appropriately.		
Describe the role of ultrasonography and other peripheral densitometry devices in the evaluation of osteoporosis and recommend appropriately.		
Describe the role of trabecular bone score in the evaluation of osteoporosis and recommend appropriately.		
Explain the use and limitations of bone turnover markers in the clinical setting (as well as their relationship to the bone remodeling cycle) and interpret results.		
Pathogenesis		
Explain the role of estrogen deficiency in the pathogenesis of postmenopausal osteoporosis.		
Explain the role of androgen deficiency in the pathogenesis of osteoporosis in men.		
Discuss the role of aging in the pathogenesis of osteoporosis.		
Explain the role of cytokines and growth factors in the pathogenesis of osteoporosis.		
Explain the role of genetics, ethnic variation, and environmental factors in the pathogenesis of osteoporosis.		
Distinguish nutritional vitamin D deficiency from insufficiency and explain the differences in terms of impact on bone density, fracture risk, and falls.		
Discuss the impact of physical activity and nutrition (eg, calcium and vitamin D) on bone mass and fractures, as well as factors such as medications, neuromuscular disorders, impaired vision, and propensity to fall.		
Therapy		
Recommend appropriate preventive measures for osteoporosis.		
Select appropriate nonpharmacologic treatment modalities such as lifestyle changes, calcium and vitamin D supplementation, and referral to physical therapy.		
Manage the care of women going through menopausal transition and incorporate up-to-date guidelines regarding hormone therapy.		
Explain the role of the following therapies in the treatment of osteoporosis as well as their short- and long-term adverse effects: hormone therapy, oral and intravenous bisphosphonates, selective estrogen receptor		

modulators, parathyroid hormone, calcitonin, calcium, vitamin D, and denosumab.		
Manage secondary fracture prevention after an initial osteoporotic fracture has been sustained and review measures to reduce the risk of subsequent fractures.		
Guide pain management in patients with vertebral or other fractures.		
Work with specialists (orthopedists or radiologists) in the management of patients with acute fractures or delayed healing of fractures.		
PAGET DISEASE		
Epidemiology and Pathogenesis		
Discuss the pathogenesis and epidemiology of Paget disease of bone.		
Biochemical Abnormalities		
Interpret results from laboratory studies used to document the extent and severity of Paget disease activity (biochemical markers of bone turnover).		
Radiographic Abnormalities		
Interpret imaging studies used to document the extent and severity of Paget disease activity (scintigraphy and radiographs).		
Identify the typical radiographic appearance of Paget disease and features that distinguish it from other similar conditions such as fibrous dysplasia or osteoblastic metastases.		
Therapy		
Recommend treatment for Paget disease, which may include the use of antiresorptive medications, and describe the biochemical and clinical goals of therapy.		
HYPOVITAMINOSIS D		
Discuss the pathogenesis and epidemiology of vitamin D deficiency.		
Diagnose and manage vitamin D deficiency.		
Differentiate among the causes of vitamin D deficiency, including decreased dietary intake, malabsorption, limited sun exposure, liver failure, renal insufficiency, drug-induced, vitamin D–dependent rickets type 1, and hereditary vitamin D–resistant rickets.		
Recognize vitamin D deficiency as a potential sign of celiac disease (in an otherwise minimally symptomatic or asymptomatic patient) and determine appropriate testing to establish a diagnosis.		
OSTEOMALACIA AND RICKETS		
Recognize various types of osteomalacic disorders and differentiate them from osteoporosis.		
Distinguish osteomalacia from rickets.		
Differentiate among various inherited disorders of vitamin D action (eg, vitamin D dependency, hypophosphatemic or vitamin D–resistant rickets, and osteomalacia)		
Explain how vitamin D deficiency or resistance can result in osteomalacia by impaired availability of vitamin D, impaired 25-hydroxylation of vitamin D in the liver to 1,25-dihydroxyvitamin D, impaired 1α-hydroxylation of 25-hydroxyvitamin D in the kidney to 1,25-dihydroxyvitamin D, and end-organ insensitivity to vitamin D metabolites.		
Chronic Hypocalcemia		
Describe the clinical manifestations, diagnosis, and management of		

calcipenic rickets (eg, nutritional rickets, 1α-hydroxylase deficiency, hereditary resistance to vitamin D, and secondary defects in vitamin D metabolism or absorption of calcium or vitamin D).		
Chronic Hypophosphatemia		
Describe the clinical manifestations of phosphopenic rickets (eg, renal tubular disorders, X-linked hypophosphatemic rickets, tumor-induced osteomalacia, hereditary hypophosphatemic rickets with hypercalciuria).		
Diagnose and manage phosphopenic rickets.		
Chronic Acidosis		
Diagnose and manage osteomalacia associated with distal renal tubular acidosis.		
Diagnose and manage osteomalacia associated with proximal renal tubular acidosis.		
Diagnose and manage osteomalacia associated with acidosis seen after ureterosigmoidostomy.		
Inhibitors of Mineralization		
Diagnose and manage osteomalacia associated with mineralization inhibitors such as bisphosphonates, aluminum, and sodium fluoride.		
RENAL OSTEODYSTROPHY		
Review indications for bone biopsy and evaluation of tetracycline-labeled bone for stratification of bone disease in the setting of chronic kidney disease.		
Secondary Hyperparathyroidism		
Discuss the pathogenesis, clinical manifestations, and management of secondary hyperparathyroidism.		
Tertiary Hyperparathyroidism		
Discuss the pathogenesis, clinical manifestations, and management of tertiary hyperparathyroidism.		
NEPHROLITHIASIS		
Evaluate nephrolithiasis.		
Perform the differential diagnosis of primary hyperparathyroidism and idiopathic hypercalciuria.		
Guide the medical management of nephrolithiasis, which may include thiazide diuretics and/or bisphosphonates and appropriate dietary management.		
OSTEOGENESIS IMPERFECTA AND BONE DYSPLASIAS		
Discuss the pathogenesis and epidemiology of osteogenesis imperfecta.		
Diagnose and manage osteogenesis imperfecta.		
FIBROUS DYSPLASIA AND OTHER DYSPLASTIC SYNDROMES		
Discuss the pathogenesis and epidemiology of fibrous dysplasia and other dysplastic syndromes.		
Guide the diagnosis and medical management of the skeletal aspects of fibrous dysplasia, as well as precocious puberty when present (eg, McCune-Albright syndrome).		
CALCIPHYLAXIS		

Discuss the pathogenesis and epidemiology of calciphylaxis.		
Diagnose and manage calciphylaxis.		
HYPOPHOSPHATEMIA		
Renal Losses		
Diagnose and manage hypophosphatemia due to increased urinary excretion from primary and secondary hyperparathyroidism, hypercalcemia of malignancy, primary renal phosphate wasting (eg, X-linked hypophosphatemic rickets, tumor-induced osteomalacia), Fanconi syndrome, vitamin D deficiency or resistance, or alcohol and other drugs.		
Poor Gastrointestinal Absorption		
Diagnose and manage hypophosphatemia due to poor gastrointestinal absorption from malabsorption, vitamin D deficiency, or alcohol and other drugs.		
Internal Redistribution		
Diagnose and manage hypophosphatemia due to internal redistribution as a result of intravenous glucose administration, acute respiratory alkalosis, recovery from acidosis, hungry bone syndrome, or osteoblastic metastases.		
SKELETAL NEOPLASMS/INFILTRATIVE DISORDERS		
Identify benign and malignant skeletal neoplasms on skeletal radiographs.		
Institute appropriate referrals to orthopedic surgeons or to radiation and/or medical oncologists.		
Diagnose and manage infiltrative disorders of bone, including mast cell disease and histiocytosis X.		
DISORDERS OF EXTRASKELETAL CALCIFICATION/OSSIFICATION		
Diagnose and manage disorders of extraskeletal calcification/ossification, including tumoral calcinosis, metastatic and dystrophic calcification, dermatomyositis with calcinosis cutis universalis, and various rare ossification disorders.		
IMAGING TECHNIQUES AND PROCEDURES		
Recognize the typical radiographic appearances of common metabolic bone disorders (eg, vertebral and long bone fractures, stress fractures and reactions, rickets and pseudofractures of osteomalacia, Brown tumors, Paget disease of bone).		
Explain the fundamentals of parathyroid imaging (technetium 99m sestamibi scan and ultrasonography), including the appropriate use of this test in the evaluation of patients with primary hyperparathyroidism.		
Explain the appropriate use of computed tomography and magnetic resonance imaging in the evaluation of patients with persistent or recurrent hyperparathyroidism to exclude ectopic parathyroid adenoma.		
Discuss the use of dual-energy x-ray absorptiometry for potential assessment of body composition (see Osteoporosis section for specifics of dual energy x-ray absorptiometry evaluation).		
Explain the technique and use of bone scintigraphy in various clinical situations.		

TEACHING METHODS AND EVALUATION

To be determined…

SUGGESTED READING

Asterisks denote references that are designated for residents, students, or endocrine fellows early in their training.

GENERAL READING, PHYSIOLOGY, EPIDEMIOLOGY	
*Rosen CJ, Bouillon R, Compston JE, Rosen V, eds. *Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism*. 8th ed. Washington, DC: Wiley-Blackwell; 2013.	Textbook
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HYPERCALCEMIA AND HYPERPARATHYROIDISM	
*Silverberg SJ. Primary hyperparathyroidism. In: Rosen CJ, Bouillon R, Compston JE, Rosen V, eds. *Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism*. 8th ed. Washington, DC: Wiley-Blackwell; 2013.	Textbook
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HYPOCALCEMIA AND HYPOPARATHYROIDISM	
Kim ES, Keating GM. Recombinant human parathyroid hormone (1-84): a review in hypoparathyroidism. *Drugs*. 2015;75(11):1293-1303.	Article
Whitteveen JE, van Thiel S, Romijn JA, Hamdy NA. Hungry bone syndrome: still a challenge in the post-operative management of primary hyperparathyroidism: a systematic review of the literature. *Eur J Endocrinol*. 2013;169(3):R45-R53.	Article
Marx SJ. Hyperparathyroid and hypoparathyroid disorders [published corrections appear in *N Engl J Med*. 2001;344(9):696 and *N Engl J Med*. 2001;344(3):240]. *N Engl J Med*. 2000;343(25):1863-1875.	Article
OSTEOPOROSIS	
General Articles	
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USEFUL WEB SITES

American Society of Bone and Mineral Research www.asbmr.org
National Osteoporosis Foundation www.nof.org
International Society for Clinical Densitometry www.iscd.org

APDEM
ASSOCIATION OF PROGRAM DIRECTORS IN ENDOCRINOLOGY • DIABETES • METABOLISM

To: APDEM Members

From: Mark True, MD, Chair, Endocrine Society ITE Steering Group

Date: April 2, 2016

Re: Item 6b: Update on ESAP™ In-Training Exam (ESAP-ITE)

Under the Endocrine Society's Clinical Endocrine Education Committee's direction, the ITE Steering Group worked throughout the year to select a mix of new questions and previously tested questions to improve the exam's discrimination and utility. Below are the enhancements to the 2016 exam:

- The number of questions increased from 60 to 91 questions.
- The exam consisted of new ESAP 2016 questions and pre-tested questions.
- Question stems were edited and shortened by the members of the group to be more concise to ensure that the time to complete the exam remained in the 3.5-hour range.
- Lab reference ranges were incorporated into the stems of the questions to allow continuity with the ABIM initial certifying exam as well as ease for a fellow to access the information.

Participant Demographics and Performance

ESAP-ITE 2016 was open for administration from January 15th – February 16th, 2016. As of February 18th, 637 fellows completed the exam, comprising 303 first year fellows, 308 second year fellows and 26 third years and higher. These fellows represented 142 programs with a total of 132 domestic programs and 10 international programs.

The mean score for 2016 was 58% with a range of 31%-88%. The breakdown by fellowship year is included in **Table 1.** A breakdown of topical area performance is included in **Table 2**.

Year	2016 (n=637)	2015 (n= 622)	2014 (n= 597)	2013* (n= 556)	2012* (n= 525)
1	54%	55%	52%	57%	52%
2	61%	61%	57%	61%	58%
2+	67%	67%	61%	62%	58%
Total	**58%**	**58%**	**55%**	**59%**	**55%**

Table 1 – Average Performance by Exam and Fellowship Year
*fellowship years were not accurately gathered

Topic Area	# of questions	2016 Avg. % correct	2015 Avg. % correct
Adrenal	9	46%	45%
Bone/Calcium	15	60%	57%
Diabetes	23	63%	63%
Female Reproduction	8	58%	56%
Lipid / Obesity	11	51%	57%
Male Reproduction	7	48%	62%
Pituitary	9	54%	48%
Thyroid	9	68%	64%
Total	**91**	**58%**	**58%**

Table 2 – 2016 Average Performance by Topic Area

The exam length increased by 31 questions for 2016 and the fellows took an average of 3.5 hours to complete, within the targeted time.

Learning Support for Fellows

ITE Live will be presented in Boston at ENDO 2016 on Friday, April 1 from 11:00 AM – 12:30 PM. Within this 90-minute session, cases that had a low pass rate will be discussed. Faculty will highlight the main teaching points of each case and be available to answer any questions the fellows and/or program directors may have. The Society will also provide all ITE cases in a slide set, in addition to a PDF of the exam questions, to more easily facilitate teaching as follow-up to the exam.

Four fellowship programs are beta testing ITE Plus learning materials for three ITE 2016 topical areas (male reproduction, female reproduction, and pituitary). The learning materials include answer rationale and references for the exam questions. Fellows also have the ability to re-test themselves with smaller topical quizzes using the questions for ITE. Feedback from fellows and program directors will be used to enhance the delivery of ITE Plus learning materials, which will be a cornerstone of the Fellows Training Series.

Future Enhancements to ESAP-ITE

Even with modification in question sourcing, number of questions, and length of items, the overall average scores were similar to previous years' exams, though the exam did appear to have increased discrimination between test takers. The difficulty of the exam continues to be of concern to some in the training community. The steering group will conduct a more detailed analysis of questions performance after ENDO and the committee will examine the process of curating and developing questions for future exams.

The group will explore other enhancements of ITE.

- Enhancing ITE reports.
- Tying APDEM curriculum to ITE.
- Developing a 2-year exam blueprint to ensure that most topics from the curriculum are covered by ITE.
- Increasing participation from international training programs.
- Enhancing learning materials with Fellows Training Series

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ASSOCIATION OF PROGRAM DIRECTORS IN ENDOCRINOLOGY • DIABETES • METABOLISM

To: APDEM Members

From: Mark W. True, MD et al.; San Antonio Military Medical Center

Date: April 2, 2016

Re: Item 6b: Endocrine Society Survey on Leadership Training in Endocrinology Fellowship

Background: Due to the increasingly complex healthcare environment, many are advocating for increased need for physician leadership and exposure to leadership concepts throughout the spectrum of physician training. Within our specialty, there is a current and projected shortage of endocrinologists nationwide.

One approach is to reconsider the role of an endocrinologist as a leader. Within a clinic, this could mean leading a team to include mid-level providers in addition to traditional support staff. In a broader sense within a healthcare system or a region, this could mean being a driver of best practices among those who manage routine endocrine disorders. The goal of this survey is to assess current opinions regarding incorporating leadership training into endocrinology fellowship curriculum.

Target Audiences:
1) Program Directors
2) Recent endocrinology fellowship graduates, 2011 and beyond

Time to take survey:
10-15 minutes

A link to access the survey will be sent electronically to these target audiences.

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To: APDEM Members

From: Mark W. True, MD, ASP Councilor

Date: April 2, 2016

Re: Item 6b: ASP Update

The Association of Specialty Professors (ASP) is hosting its 2016 ASP Accreditation Seminar April 19-20, 2016 at The Mirage Hotel and Casino in Las Vegas, NV. An agenda is attached for APDEM members' information. ASP is working to coordinate "All-in" efforts between various specialties and in November 2015, hosted a summit of specialty sponsors such as APDEM. APDEM's efforts regarding the Match will be discussed at the meeting. Further information about ASP is also attached for members' reference.

Attachments:

1. Agenda for 2016 ASP Accreditation Seminar
2. Information on ASP

2016 ASP Accreditation Seminar
April 19-20, 2016
The Mirage Hotel and Casino
Las Vegas, NV

Agenda
(as of February 22, 2016)

Tuesday, April 19, 2016

6:30 a.m. to 6:00 p.m.	Registration
3:00 p.m. to 3:15 p.m.	**Welcome and Introductions**
3:15 p.m. to 4:45 p.m.	**Session One: Quality Improvements for Your Fellowship Program**
	Jennifer Dickerson, MD Ohio State University College of Medicine
5:30 p.m. to 7:00 p.m.	**Poster Reception**

Wednesday, April 20, 2016

6:30 a.m. to 10:00 a.m.	Registration
6:30 a.m. to 8:00 a.m.	Continental Breakfast, Cyber Café, Exhibits, and AAIM Connect Center
8:15 a.m. to 10:00 a.m.	**Session Two: Developing Scholarship Activities for Your Institution**
	Sakima Smith, MD Ohio State University College of Medicine
	Rehan Qayyum, MD University of Tennessee College of Medicine at Chattanooga
10:00 a.m. to 10:15 a.m.	Break, Cyber Café, Exhibits, and AAIM Connect Center
10:15 a.m. to 11:15 a.m.	**Session Three: The Importance of Wellness in Fellowship Programs**
	Mukta Panda, MD University of Tennessee College of Medicine at Chattanooga
11:15 a.m. to 12:15 p.m.	Networking Lunch
12:15 p.m. to 1:15 p.m.	**Session Four: Diversity – Fostering It In Trainees and Imbedding It into Curriculum**
	Scott Maffett, MD Ohio State University College of Medicine
1:15 p.m. to 1:30 p.m.	Break

1:30 p.m. to 3:00 p.m.	**Session Five: Regulatory Updates**
	Furman S. McDonald, MD American Board of Internal Medicine
	Eric J. Warm, MD University of Cincinnati College of Medicine
3:00 p.m. to 3:15 p.m.	**Wrap-Up**

Who are ASP members?

ASP members are primarily division chiefs, fellowship program directors, and associate fellowship program directors, but may also be any physician faculty involved in an accredited subspecialty internal medicine fellowship program or its division.

Ensure your division and fellowship program leaders are signed up!

Division administrators are welcome to join the Administrators of Internal Medicine (AIM) and fellowship program coordinators are invited to join the Association of Program Directors in Internal Medicine (APDIM).

ASP
Association of Specialty Professors

Do you lead or aspire to lead a division fellowship program or clinical unit in subspecialty internal medicine? Then joining ASP is right for you! With over 2,800 members, ASP is the community of academic leaders in subspecialty internal medicine divisions at medical schools and community teaching hospitals in the United States and Canada.

ASP Members...

Remain Knowledgeable and Enhance Their Careers
Earn CME credit at the ASP Accreditation Seminar, which is designed to help fellowship program directors and administrators better understand the changing landscape of fellowship education. The course provides "hands-on" information to help enhance diversity, achieve wellness of residents, evaluate fellowship training programs and fellows, as well as provide successful tools to enhance fellowship programs.

Download the 2015 ASP Accreditation Seminar presentations. ASP members register at a discounted rate.

Get Involved in Shaping the Subspecialty Landscape
Have a direct impact in your field! ASP members are currently discussing the NRMP "all in" policy and recently helped convene the Third Consensus Conference on Physician-Investigators.
Read the recommendations for the fellowship uniform start date.
Learn more about the recent AAIM Subspecialty Summit on the NRMP "all in" policy.
Review presentations from the consensus conference.

Volunteer and Give Back to Their Profession
ASP offers many opportunities for members to build resumes while aiding the association. ASP members are involved in the AAIM Resident to Fellow Interface Committee, AAIM Research Committee, High Value Care Workgroup, and many other professional volunteer opportunities.
Take a look at committees you may volunteer for.

Engage Cutting Edge Curricula
ASP members will have access to the newly developed High Value Care fellowship curriculum. Be on the lookout for the curriculum via AAIM's website, www.im.org.
Learn more about High Value Care.

Network with Other Academic Professionals
Through AAIM Connect, our online community, members have access to over 9,000 academic internal medicine professionals, allowing networking, collaboration, and sharing of best practices to take place. AAIM Connect features discussion forums and document libraries as well as a searchable member directory.

To learn more about what ASP membership offers, visit www.im.org/membership.

ASP is a member of the Alliance for Academic Internal Medicine (AAIM).

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W: www.im.org

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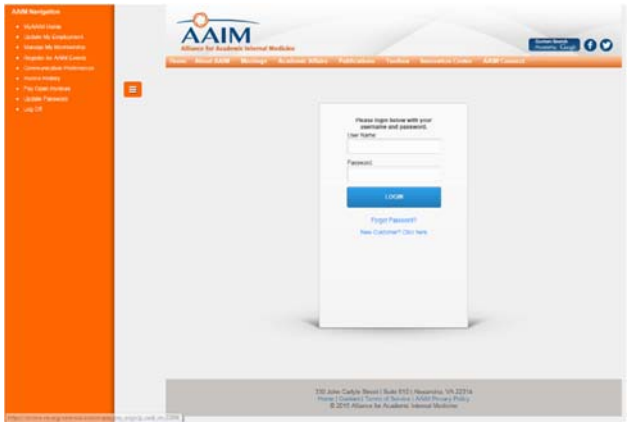

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Connect with colleagues, share best practices, and get the answers you need

1. Log in to your **MyAAIM profile** page.
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3. Select "Forums" from blue ribbon.
4. Select "Associations."
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6. Select "Add a Thread" from right side of page to start a new conversation; to read and reply to existing threads, select the topic you wish to view.

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4. Select "Add Subscription."
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6. Select your subscription preferences from the drop down options.
7. Once subscribed, you can reply to existing threads or start new threads without logging in to AAIM Connect by sending an email to **ASP@aaimonline.im.org**

APDEM
ASSOCIATION OF PROGRAM DIRECTORS IN ENDOCRINOLOGY • DIABETES • METABOLISM

To: APDEM Members

From: Whitney Goldner, MD, Chair, Endocrine Society Clinical Endocrine Education Committee

Date: April 2, 2016

Re: Item 6c: Fellows Training Series

The Endocrine Society will launch its new Fellows Training Series (FTS) this summer. Training programs will select from either a basic or premium institutional subscription, which will provide both program directors and fellows with access to FTS content through the Endocrine Society Center for Learning.

Both subscriptions include the annual ESAP In-Training Exam (ESAP-ITE), reports on fellow and group performance, and new assessment tools in three endocrine procedures recognized as a part of ABIM Initial Certification (Thyroid ultrasound, DEXA scan, and CGMS interpretation). At launch, the **premium** subscription will include access to additional teaching and learning tools including *ITE+ Learning Materials, ESAP: Medical Professionalism, ESAP: Imaging, ENDOCareers Online Series, clinical practice guideline content,* and *Endocrine Fellows Conferences Online.* Details on the FTS will be shared with APDEM members at the meeting.

Future modules for the Series include interviewing techniques, common endocrinology exams and diagnostic testing, lipids, endocrine and cancer, and transgender care.

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To: APDEM Members

From: Dace L. Trence, MD, FACE

Date: April 2, 2016

Re: Item 6d: AACE/APDEM Joint Liaison Committee

In support of fellowship training, APDEM and AACE have convened a joint committee. The charge of this group is to develop educational activities for program directors and fellows. Members of the committee are:

Ann Danoff, MD - Philadelphia, PA
Kathleen Figaro, MD, MS - Davenport, IA
Geetha Gopalakrishnan, MD – East Providence, RI
Ved Gossain, MD, FRCP, FACE - East Lansing, MI
Jonathan Leffert, MD, FACP, FACE, ECNU - Dallas, TX
David Lieb, MD, FACE - Norfolk, VA
Sara Lubitz, MD - Westfield, NJ
Janet McGill, MD, FACE - Saint Louis, MO
Vin Tangpricha, MD, PhD, FACE - Atlanta, GA
Dace Trence, MD, FACE - Bellevue – WA

Committee charges are as follows:

1. Pursue ways in in which APDEM and AACE may collaborate on enhancing the educational curriculum and experience for fellows-in-training that will best serve to prepare them for pursuing their chosen area of interest and practice environment upon completion of their training.
2. Partner together in the development of teaching materials for fellows and reviewing the curriculum to ensure that it meets the needs of the current and changing practice environment.
3. Explore ways to encourage more interest in endocrine fellowships to address the severe shortage of endocrinologist workforce.

The joint committee has begun exploring potential areas to pursue, including:

1. Business of Endocrinology (how to decide what type of job you want, negotiation, contracts, budgets, etc.)
2. Developing a series on common problems encountered in an endocrine practice (the non-zebras: normal TSH, convinced fatigue is related to thyroid diathiasis; adrenal fatigue; eating disorders; non-endocrine hair loss; normal T, wanting T, etc.)
3. Working on a team in the office
4. Developing a mentoring system/pool

APDEM
ASSOCIATION OF PROGRAM DIRECTORS IN ENDOCRINOLOGY • DIABETES • METABOLISM

To: APDEM Members

From: Christopher Rolland McCartney, MD
Chair, APDEM All-In Match Working Group

Date: April 2, 2016

Re: Item 7: Endocrinology and NRMP's "All-In" Policy

Driven by a desire to maximize fellowship candidate autonomy and benefit, the Association of Program Directors in Endocrinology and Metabolism (APDEM) is exploring the potential desirability of an All-In Match Policy. As an initial but critical step in this process, APDEM seeks to identify the potential benefits and potential liabilities of moving to an All-In Match (vis-à-vis the current matching process). To this end, APDEM has recently formed an All-In Match Working Group:

Christopher McCartney, MD (Chair)
Andrew Gianoukakis, MD
Geetha Gopalakrishnan, MD
Janet McGill, MD
Paris Roach, MD
Elias Said Siraj, MD
Mark True, MD

In a spirit of inclusion and collaboration, the Working Group is seeking additional perspectives and input from APDEM members. The attached document summarizes and serves as a transparent record of the Working Group's deliberations to date. APDEM members are asked to review and provide input to the Working Group during the annual meeting and also at http://www.apdem.org/all-in-match-apdem-statement/.

Attachment:

1. DRAFT APDEM All-In Match Working Group Summary (2016-03-22)

APDEM All In Match Working Group: Summary of Deliberations to Date (as of March 22, 2016)

Introduction

Endocrinology fellowship programs initiated participation in the Specialties Matching Service (SMS) of the National Residency Matching Program (NRMP) circa 2009. Current NRMP policy, as stated in the SMS Match Participation Agreement[1], is as follows:

> The NRMP requires the program directors' group of each specialty participating in the SMS to execute annually an "NRMP Program Directors' Annual Participation Agreement" that commits active participation of at least 75 percent of the group's eligible programs and a minimum of 75 percent of all available positions in the specialty for that year. If a group fails to register 75 percent of its eligible programs and/or positions, the NRMP, at its discretion, may discontinue such group's participation in Matches managed by the NRMP. Specialties Matching Service Match sponsors may voluntarily elect to implement a policy whereby all participating programs are required to register and attempt to fill all positions in the Match.

For endocrinology, out-of-Match offers/agreements are not formally distributed across Programs. Although out-of-Match offers/agreements are not closely monitored, the NRMP compares Match participation with overall number of positions (information obtained from ACGME), and Match participation in endocrinology is reportedly very high (> 90%). According to our current understanding, a majority of Programs fill all positions via the Match alone; but some Programs (percentage of total unknown) fill some positions via out-of-Match agreements, and some Programs (percentage of total unknown) fill all positions via out-of-Match agreements.

APDEM leadership has observed a growing interest from various interest groups—including resident candidates for subspecialty fellowships—for medical subspecialties to adopt "All In" polices, similar to the All In Policy for the Main Residency Match[2]:

> (1) Any program registering for the Match must attempt to fill all positions through the Match or another national matching plan; (2) Programs planning to participate in the Match cannot offer positions outside the Match prior to program director registration and program activation; and (3) Once a position has been offered outside the Match, the program no longer is eligible to enroll in the Match unless the offered position falls into one of the exception categories for the Match.

In early 2015, APDEM administered surveys to both Program Directors (PDs) and endocrine fellows: 71% (40 of 56) of PD respondents and 78% (31 of 40) of fellow respondents indicated a preference for an All In Match Policy. Although PD survey response rates were < 50%—and the fellow response rate even lower—the results prompted APDEM leadership to explore the desirability of an All In Policy in more detail. To this end, APDEM formed an All In Match Working Group composed of the following PDs:

- Andrew Gianoukakis (UCLA; APDEM Council member)
- Geetha Gopalakrishnan (Brown University; APDEM President Elect)
- Christopher McCartney (University of Virginia; Chair of Working Group, APDEM Council member)
- Janet McGill (Washington University, Saint Louis)
- Paris Roach (Indiana University)
- Elias Said Siraj (Temple University; APDEM Council member)
- Mark True (San Antonio Uniformed Services Health Education Consortium Program; Endocrinology representative on Association of Specialty Professors [ASP] Council)

Recognizing the controversial nature of this issue, APDEM leadership ensured that the Working Group included PDs with an inclination to favor All In as well as PDs with an inclination to oppose All In.

Broadly speaking, the Working Group seeks to achieve the following goals:

Goal 1. Identify the goals and preferences of fellows[3] for the matching process
Goal 2. Identify goals and preferences of PDs and Programs for the matching process
Goal 3. Identify potential challenges encountered in the current system and in an All In Match paradigm
Goal 4. Identify potential solutions to challenges in the current system and in an All In Match paradigm
Goal 5. Develop action plans for success in both systems for presentation to ASP, ACGME, and NRMP

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1 http://www.nrmp.org/wp-content/uploads/2015/06/2016-MPA-SMS-FINAL.pdf (accessed 2/24/2016)
2 http://www.nrmp.org/policies/all-in-policy/ (accessed 2/24/2016)
3 The goals and preferences of fellows will serve as a proxy for the goals and preferences of fellowship candidates.

The following represents a summary of Working Group deliberations to date, primarily for Goals 1 and 2 listed immediately above. This summary is intended to serve as a background as we begin to elicit additional input from the APDEM constituency and from fellows.

At the outset, the Working Group emphasizes the following:

- **Most importantly, the Working Group's overarching goal is to identify a recruitment/matching paradigm that will be most beneficial to fellowship candidates.**
- The Working Group recognizes that relevant data are sparse, and some of the concerns prompting the current inquiry are largely based on anecdotal data.
- An All In Match Policy can include well-defined exemptions (e.g., situations in which out-of-Match offers are allowed), as is true of the Main Residency Match.

Goal 1. Identify the goals and preferences of fellows for the matching process

The aforementioned fellow poll indicates that a high percentage of endocrinology fellows may favor an All In Match; and APDEM will obtain additional feedback from fellows over the coming months. Of interest, some other subspecialties—Nephrology[4], Gastroenterology[5], and Geriatrics[6] in particular—have concluded that an All In policies best serve the interests of fellowship candidates, emphasizing a belief that all fellowship candidates should be allowed to explore all relevant programs before making decisions[7].

We acknowledge that, when out-of-Match offers are extended, some applicants may feel unwanted pressure to make commitments prior to a full exploration of available programs. While undue pressure may at times be exerted intentionally, the potential for undue pressure may be inherent to the offer: candidates may feel pressure to accept an early offer lest it be revoked or taken by someone else, especially if an early decision is mandated. From another point of view, such offers can reflect an inherent power asymmetry: the Program may implicitly or explicitly leverage a secure training position to obtain an early commitment, and the applicant may feel compelled to accept the offer—even if the offered position is judged to be less desirable than her/his other options—to obviate the possibility of not matching. Anecdotal data confirms that such considerations pertain in at least some cases, but the current scope of this problem is unknown.

We fully acknowledge that an out-of-Match offer may be optimal for a candidate with a strong—perhaps even exclusive—preference for a given Program[8], as may occur with internal or local candidates, for candidates desiring to obtain research training with a specific mentor, for candidates desiring to enter a specific research training organization/program, etc. Without the security of an out-of-Match offer/acceptance, such candidates may feel compelled to interview at other "safety net" institutions to ensure a training position; this can be costly in terms of time, effort, and money. On the other hand, an out-of-Match offer to/acceptance by one fellow may reduce the number of available slots, which could reduce expected return on investment (in terms of time, effort, and monetary cost) made by other interviewed candidates.[9] As a related issue, when a Program cannot secure legitimate placement via an appropriate out-of-Match offer, that Program may feel compelled to interview a number of additional candidates—candidates that they otherwise would not have interviewed—at least in part as a safeguard against failing to fill all desired slots; these additional candidates will incur interview-related costs (time, effort, and money), but these costs will presumably be associated with lower potential for return on investment (i.e., matching at the Program).

The Working Group also considered that out-of-Match offers may best serve the interests of candidates pursuing less common training and/or recruiting pathways:

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4 See Chi-yuan et al. Improving The Nephrology Match: The Path Forward. J Am Soc Nephrol. 2015;26:2634-9; and "Resolution Regarding the Nephrology Fellowship Match," https://www.asn-online.org/news/2015/0323_match_task_force_resolution.pdf (accessed 2/24/2016).

5 See Proctor et al. The Match: five years later. Gastroenterology 2011,140:15-18; and "Resolution Regarding Gastroenterology Fellowship Applicants, Including all Research and Clinical Fellowship Applicants and Positions," http://www.gastro.org/match_resolution.pdf (accessed 2/24/2016).

6 See http://adgap.americangeriatrics.org/fellowship-resources/match-information/ (accessed 3/4/2016)

7 Our understanding is that Infectious Disease and Sleep Medicine is committed to this pursuit as well. The American Association of Endocrine Surgeons follows a similar matching process (see https://www.endocrinesurgery.org/fellowships/program-code-of-conduct.html).

8 Although a candidate may disingenuously express very strong or even exclusive interest, it is unclear how commonly this occurs.

9 This particular concern was expressed by an endocrinology fellow in response to the APDEM survey.

- **Combined training programs involving programs with two different NRMP codes:** An example is a combined adult-pediatric endocrinology training program. There is currently no NRMP/SMS Match for combined adult-pediatric endocrinology, and there is currently no NRMP/SMS mechanism by which a fellow may be matched simultaneously to an adult endocrinology program and a pediatric endocrinology program.
- **ABIM Research Pathway**[10]**:** Sometimes called "short track," this is a well-defined pathway for residency candidates that, for Medicine-Endocrinology, involves (in sequence) 2 years of clinical Internal Medicine training (residency), one year of concentrated clinical endocrinology training, and 3 years committed to research training (80% effort). Entry into the ABIM research pathway via a Medicine Residency strongly implies an early commitment on the part of the endocrinology fellowship program, even though the candidate initially matches via the Main Residency Match only.
- **Endocrinology training for military personnel:** The military has its own GME system with its own selection procedures. Placement decisions for all military GME training positions occur in November with results being released in mid-December. While most military personnel receiving endocrinology training do so within the military system, military personnel not securing a military-based position may be allowed to receive endocrinology training in the civilian sector. In this situation, the candidate must secure a suitable position her-/himself (i.e., the military does not pre-arrange contingency positions in the civilian sector). Given the timing of the NRMP Match vis-à-vis military placement decisions, military personnel not securing a military-based position could not begin civilian training the following July unless out-of-Match positions were allowed.
- **Combined three-year clinical-research fellowship positions:** This may primarily apply to candidates with an exclusive preference for a specific Program, for a specific mentor, etc.
- **Candidates with limited or no availability during normal recruitment months:** Such situations may prohibit a candidate from reasonably exploring her/his options under an All In paradigm. Possible examples of such candidates may include those taking maternity leave during recruiting season, or candidates with foreign government funding who may apply at atypical times.

Goal 2. Identify goals and preferences of PDs and Programs for the matching process

The aforementioned PD poll suggests that a majority of PDs may favor an All In Match. We hold it to be axiomatic that perceived benefit to fellowship candidates will strongly influence PD polling results. However, Program-specific considerations likely pertain as well.

Perhaps the most important advantage of the current Match system is that it affords (limited) flexibility to extend out-of-Match positions as needed—ideally when out-of-Match offers are perceived to be mutually beneficial to the Program and candidate alike. Presumably, Programs would not offer out-of-Match positions without perceived benefit; and as discussed above, out-of-Match offers may be optimal for some candidates.

Fellowship candidate recruiting is a competitive endeavor, and Programs desire to recruit the best candidates possible. Out-of-Match offers may represent a competitive advantage: if a Program can secure an early commitment from a desirable candidate, the candidate is effectively removed from the pool of candidates available to other Programs. This represents an opportunity cost for other Programs. Out-of-Match position acceptance should also prompt the fellowship candidate to cancel subsequent interviews; this may represent an additional opportunity cost for affected Programs. That is, in addition to being unable to interview a desirable candidate, the Program may not be able to achieve its desired number of interviews. Accordingly, this early selection opportunity can be a source of resentment among PDs (i.e., PDs that do not offer out-of-Match positions may feel disadvantaged). Some have argued that competition for candidates should reflect a meritocracy in which a Program's ability to recruit desirable candidates reflects how Program-inherent considerations (e.g., faculty, training opportunities, divisional culture, location) align with candidates' needs; and that introducing non-Program-related considerations (e.g., early position security) inappropriately disrupts a level playing field for Programs.

We considered that out-of-Match offers may have additional negative impacts on Programs. When applicants can be removed from the candidate pool via out-of-Match agreements, competitive considerations may create undue pressure for Programs to offer positions to candidates before the Program has sufficiently evaluated all

[10] For more details, see http://www.abim.org/certification/policies/research-pathway/policies-requirements.aspx.

available applicants. Also, since most candidates understand the rationale for and complied with an All In Policy for residency matching, it seems plausible that out-of-Match offers could at times negatively impact a fellowship candidate's perception of that Program, thus diminishing a Program's ability to recruit the candidate. Similarly, there is a poorly defined but plausible risk that out-of-Match offers may undermine trainee confidence in the current system of fellowship position allocation, especially when such offers are associated with intentional application of undue pressure. The degree to which these considerations pertain is uncertain.

Intuition holds that, compared to a Program securing some or all positions outside of the NRMP Match, a Program securing all positions via the NRMP Match would likely interview more candidates per available position, largely as a safeguard against failing to fill all desired slots. Each additional interview represents additional burden (in terms of time and effort) for Programs. Accordingly, when a candidate expresses an exclusive interest in a Program (i.e., does not want to interview elsewhere), a Program's inability to offer out-of-Match positions—accompanied by a felt need to interview additional candidates as a safeguard—could be viewed as an unnecessary burden on that Program.

A common intuition is that discontent with out-of-Match offers is greatest in undersubscribed subspecialties (i.e., low candidate-to-position ratio)[11]; but highly subscribed specialties tend to be more accepting of the status quo because it offers some degree of flexibility, even if said flexibility is not used frequently. While endocrinology does not currently appear to be significantly undersubscribed, the future remains unclear in this regard[12]. Some Programs have not filled all Match positions in recent years[13]; it is unknown whether failure to fill would prompt Programs to begin offering (or offer more) out-of-Match positions. Many perceive a gradual reduction in the availability of fellowship candidates with a strong research background and a strong desire to pursue a research career; such candidates could potentially be preferentially targeted for out-of-Match offers.

Goal 3. Identify potential challenges encountered in the current system and in an All In Match paradigm

This will require continued investigation and deliberation, and it will be informed by continued exploration of Goals 1 and 2 (above). However, some of the potential challenges are briefly summarized below.

Potential challenges of the current system:

- Undue pressure felt by candidates offered out-of-Match positions, especially when early acceptance decisions are mandated
- Inequitable use of out-of-Match offers as a (potential) competitive advantage
- Potential that out-of-Match offers may undermine trainee confidence in the current system of fellowship position allocation and produce resentment among PDs

Potential challenges of an All In Match:

- Some candidates may truly be best served by acceptance of an out-of-Match offer; under an All In Match Policy with no exceptions, such candidates would likely feel compelled to interview widely (to increase security), incurring substantial costs in the process.
- Adjudicating requests for Match exemptions may be difficult, and exemptions may represent unnecessary loopholes allowing non-adherence to the spirit of an All In Policy. (Accordingly, many believe that it is best to have as few exemptions as possible.)
- A major concern among working group members relates to enforceability. A successful All In Policy would require uniform Program adherence. Thus, accurate monitoring—and viable plans for enforcement as needed—would be of paramount importance for success in this regard. However, the best way to monitor and potentially enforce adherence is unclear at this time. It would clearly require cooperation from other entities such as NRMP, and likely ACGME as well (e.g., so that fellows matched

[11] See "The Benefits and Obstacles for Subspecialty Fellowship Applicants and Programs if the NRMP/SMS "All-In" Policy is Adopted," available as "Summit report (PDF)" at http://www.im.org/p/cm/ld/fid=1330 (accessed 2/24/2016).

[12] According to "Results and Data Specialties Matching Service, 2016 Appointment Year" (http://www.nrmp.org/wp-content/uploads/2016/03/Results-and-Data-SMS-2016_Final.pdf [accessed 3/8/2016]), the number of endocrinology fellowship applicants has decreased from 378 in 2012 to 325 in 2016, and the number of fellowship positions has increased from 235 in 2012 to 270 in 2016.

[13] See "NRMP Program Results 2011-2015 Specialties Matching Service," available at http://www.nrmp.org/wp-content/uploads/2015/02/Specialty-Match-Program-Results-2011-2015.pdf (accessed 2/25/2016).

via NRMP can be compared to fellows under ACGME oversight). Since enforceability is closely tied to viability, the Working Group will attempt to clarify these issues in the upcoming months.

Goal 4. Identify potential solutions to challenges in the current system and in an All In Match paradigm

As with Goal 3, this will require continued investigation and deliberation. However, some of the potential solutions are briefly summarized below.

Potential solutions for challenges in current system:

- Develop and widely publicize policies (e.g., ethical guidelines) to minimize undue pressure felt by candidates offered out-of-Match positions
- Ensure equitable opportunity to use out-of-Match offers (e.g., require that each Program fill 75% of its slots via the Match)
- If APDEM chooses the status quo over All In, APDEM could carefully craft and widely publicize the rationale regarding the decision, with a primary goal being to maintain candidate, trainee, and Program confidence in the current system of fellowship position allocation

Potential solutions for challenges of All In:

- Regarding the possibility that out-of-Match offers may best serve the interests of candidates pursuing less common training and/or recruiting pathways, well-defined exemptions to All In can be stipulated (e.g., for combined training programs involving programs with two different NRMP codes [med-peds endocrine]; ABIM Research Pathway; military appointees to civilian programs; certain off-cycle candidates; etc.).
- To permit matching into specialized or non-traditional tracks, Programs may establish a separate Match for the non-traditional track—which would have a unique NRMP code—in addition to traditional tracks. If the non-traditional track does not fill, the position can be automatically donated to a traditional track ("reversion").[14]
- Regarding adherence monitoring, NRMP has committed to working with nephrology to provide Match data (e.g., which candidates were placed via the Match). If data regarding all fellows in training are similarly provided by the ACGME, APDEM or a sponsoring organization (e.g., Endocrine Society) could determine if any positions had been filled outside of the Match. Regarding policy enforcement, NRMP will consider non-compliance with the nephrology All In policy to be a violation of the NRMP Match Participation Agreement. Such Programs "may be barred from future NRMP Matches and/or identified as a Match violator for one to three years or permanently, as determined by the NRMP," and "[v]iolations committed prior to Match Day may result in the program being withdrawn from the Match."[15] It may also be possible to have ERAS deny application access to Programs violating an All In policy.

Goal 5. Develop action plans for success in both systems for presentation to ASP, ACGME, and NRMP

Our intent with the current inquiry is to establish a conceptual foundation to inform future planning. The overarching goal is to improve the system of position distribution (as needed), aiming to identify a system that works as well as possible for as many fellowship candidates and Programs as possible. Such deliberation will commence in earnest when Goals 1-4 are reasonably achieved.

[14] For example, for the 2015 Match, the University of Virginia (UVA) effectively participated in two separate matches, one for a 3-year clinical/research fellowship (NRMP code 1737143F0) and one for a 2-year clinical fellowship (NRMP code 1737143F1). UVA attempted to match two fellows into the 3-year track and one fellow into the 2-year track. UVA matched only one fellow into the 3-year track in 2015; however, UVA had prearranged a reversion process with the NRMP, and this allowed the unfilled position to be donated to the 2-year clinical track. Accordingly, UVA matched one fellow into the 3-year track and two fellows into the 2-year track.

[15] http://www.nrmp.org/wp-content/uploads/2014/06/2015-Violations-Policy.pdf (accessed 2/25/2016)

By-Laws of The Association of Program Directors in Endocrinology, Diabetes, and Metabolism

Article I. Name, Object and Purpose

Section 1.1 Name and Object. The name of the corporation is the Association of Program Directors in Endocrinology, Diabetes, and Metabolism, hereinafter referred to as the "Association." The Association exists to represent the interests of training programs in the subspecialty of Endocrinology, Diabetes, and Metabolism (Endocrine Training Programs) and to facilitate cooperation with and among other organizations within the discipline of Endocrinology, Diabetes, and Metabolism. The object of the Association is to benefit and aid the education, research and patient care missions of subspecialty training programs in Endocrinology, Diabetes, and Metabolism in the United States and the State of Maryland by holding forums and meetings and publishing appropriate educational and public policy materials. The Association also exists to support new initiatives in educational and public research and patient care for the benefit of its subspecialty training program directors as they discharge their professional responsibilities.

Section 1.2 Mission. Postgraduate Endocrine Training Programs offer a blend of intellectual, procedural, clinical, and research instruction to three broad categories of physician trainees. Some matriculating trainees will leave their subspecialty training environment to deliver health care; some to perform basic or clinical research to improve that care; and some to teach health care delivery. A national organization is required to advocate and advise that process independent of other competing concerns.

The Association was chartered as an independent outgrowth of established scientific subspecialty societies in Endocrinology, Diabetes, and Metabolism to represent and consider the fortunes of subspecialty training programs aspiring to develop quality education and research that typically leads to recognized certification of their trainees.

The focus of the Association is on all matters that affect the ability of Endocrine Training Programs in the United States to achieve their academic and clinical mission. In particular, the Association has a special interest in representing programs regarding the interpretation of general training requirements, the length of training, the number of training positions, the method of distribution of training positions to accredited programs, the financial reimbursement and funding opportunities for training endocrinologists, the role endocrine training plays in biomedical research, the subspecialty teaching

responsibilities of programs for primary care, and the mechanisms by which programs can improve the quality of their training environment.

The Association, through its officers and Council will interface with all appropriate accrediting organizations, governmental agencies, or other societies that are part of Endocrinology, Diabetes, and Metabolism and express an interest in matters regarding subspecialty training in Endocrinology, Diabetes, and Metabolism. When requested, the Association will also offer testimony and commentary to government and media agencies that have, or wish to have, influence over our ability to meet its members' training objectives.

Article II. Membership

Section 2.1 Classes. The membership of the Association shall consist of two categories known as division directors and training program directors. The division directors shall consist of the heads of Divisions of Endocrinology, Diabetes, and/or Metabolism with Endocrine Training Programs recognized and fully accredited by the Accreditation Council for Graduate Medical Education (ACGME), or by another superseding body, designated by the Association. The training program directors shall consist of the heads of Endocrine Training Programs that are, or have been within three (3) years prior to the date of application, fully recognized and fully accredited by the Accreditation Council for Graduate Medical Education (ACGME), or by another superseding body designated by the Association.

Section 2.2 Eligibility. Only one individual, either the division director or the training program director, if not the same individual, from an ACGME-accredited training program shall be eligible for membership. In the event that an Endocrine Training Program includes faculty and trainees from more than one department (e.g., Internal Medicine and Pediatrics), then one division director (or training program director) from each department shall be eligible for membership.

Section 2.3 Election to Membership, etc. The members, including a committee established by the members for such purpose, shall prescribe by resolution(s) the time and manner in which eligible individuals, shall be elected to membership herein. In the absence of action by the members in adopting such resolution(s), the Council shall prescribe, by resolution(s), the time and manner in which eligible individuals shall be elected to membership. The members, including a committee thereof, may prescribe terms and conditions for the suspension or expulsion from membership, the amount of

dues and/or assessments, classes of non-voting membership, and such other matters which relate to membership.

Section 2.4 Termination of Membership. A member who ceases to be the division director or training program director of an ACGME-accredited training program in subspecialty internal medicine shall automatically cease to be a member of the Association except the President who will complete his or her term. Directors of programs from which accreditation has been withdrawn, or their successors, shall be eligible for continued membership for a period of up to three years after its accreditation has been withdrawn.

Article III. Meetings of Members

Section 3.1 Meetings. The annual meeting will be held during the Annual Meeting of The Endocrine Society, unless otherwise determined by the Council. The purpose of this meeting will be to afford members an opportunity for in-depth discussion of pertinent issues related to Endocrine training programs and their training program mission in Departments of Medicine, Pediatrics, and Obstetrics and Gynecology. Special meetings of the members may be held at any place within or without the State of Maryland.

Section 3.2 Notice. Written notice of the time and place of the annual meeting and all special meetings of the members of the Association shall be delivered to each member at least five days prior to the date of such meeting (unless a longer period of notice is required by applicable law, by the Articles of Incorporation or by these Bylaws), and notice of all special meetings of the members shall state the general nature of the business to be transacted. Any written notice shall be delivered personally or by mail (U.S., private postal or electronic). If sent by U.S. mail, such notice shall be deemed to be delivered when deposited in the United States mail, postage prepaid, . If notice is given by private postal service, it shall be deemed delivered when given to the private delivery company. If notice is given by email, it shall be deemed delivered when sent. For all methods of delivery, notice will be sent to each member's most recent address listed in the records of the Association.

Section 3.3 Quorum. The presence of one-fourth of the Association's members in person or by proxy at any special meeting, or the annual meeting, shall constitute a

quorum for the transaction of business. If a vote is taken on any matter, except as otherwise provided herein, the matter shall be decided by a majority of the members so voting.

Section 3.4 Proxies for Establishing Quorum. The written notice of a membership meeting sent to a member shall be deemed a proxy given to the Secretary-Treasurer (or his or her delegate) for the purpose of establishing a quorum unless (a) the member appears at the meeting, or (b) the member notifies the Secretary-Treasurer that the notice may not be so used.

Article IV. Council, Governance Of Council

Section 4.1 General Powers. The board of directors of the Association shall be its governing body and shall be known as the Council. In addition to the powers and authority expressly granted by law, the Council may exercise all powers of the Association not reserved to the membership by these Bylaws, and do all acts that are not prohibited by federal or State law, or limited by the Articles of Incorporation or by these Bylaws. The Council shall have responsibility for arbitrating any disputes regarding membership in the Association and for ensuring that any membership deficiencies on the Council are corrected in accordance with Section 4.4.

Section 4.2 Solicitation of Members' Views. The President and the Council shall solicit the opinion of the members of the Association on matters of current interest to the Association and shall give due deference to such wishes of the membership, when in accord with Maryland law, the Articles of Incorporation and the Bylaws.

Section 4.3 Number and Selection. The Council shall consist of seven voting members, including the President and Secretary-Treasurer, notwithstanding the nonvoting members, including the President-Elect and the Immediate Past President. The term of service of not less than three members of the Council shall terminate each year. Nominations for membership on the Council shall be proposed by a Nominating Committee, or may be proposed directly by a petition by ten per cent of the members of the Association. Ballots shall be mailed to the membership not less than 60 days in advance of the annual meeting by the Secretary-Treasurer.

Section 4.4 Term; Removal. The term of a Councilor shall be two years, and until his or her successor is elected and qualified. The President and Secretary-Treasurer will serve on the Council for the duration of their term in office. The Immediate Past President shall serve for only one year.

Section 4.5 Meetings. The regular meetings of the Council shall be held at such time and place as the Council may from time to time determine. There shall be at least one regular meeting of the Council of the Association each year, normally at the time of the annual Association meeting described in Paragraph 3.1. Additional meetings may be called at the discretion of the Council. Meetings of the Council may be held at any location within or without the State of Maryland.

Section 4.6 Notice. Written notice of the time and place of all meetings of the Council shall be delivered to each Councilor at least five days prior to the date of such meeting unless a longer period of notice is required by applicable law, by the Articles of Incorporation or by these Bylaws, and, in the case of special meetings, shall state the general nature of the business to be transacted, provided that no written notice is required in the case of regular meetings where the date, time and place has been determined in advanced by the Council. Written notice shall be delivered personally or by mail (U.S., private postal or electronic). If mailed, such notice shall be deemed to be delivered when deposited in the United States mail, postage prepaid, addressed to the designated Councilor at such Councilor's most recent address listed in the records of the Association.

Section 4.7 Quorum. A majority of the Councilor's then in office shall constitute a quorum for the transaction of business at any meeting of the Council, unless a greater proportion is required by applicable law, by the Articles of Incorporation or by these Bylaws.

Article V. Officers

Section 5.1 Officers Generally; Election. The officers of the Association shall be: President, President-Elect, Secretary-Treasurer, and such other officers as the Council designates. In addition to the powers and duties set forth in these Bylaws, each officer shall have such powers and duties as are usually related to his office under the laws of Maryland and as the Council shall determine by resolution. Nominations for election to an office shall be determined by a nominating committee shall be appointed by the President and consisting of at least three members of the Association. The nominating committee shall select nominees for the President-elect and the Council. The Secretary-Treasurer shall be elected by a majority of the Councilors at a time determined by the Council.

Section 5.2 President and President-Elect. The President-elect shall be elected from the membership. The term of office for the President-elect shall be one year, and the election for President-elect shall be held every other year. The cycle for the terms of office will normally run for the time between annual meetings of the members. The President-elect shall succeed the President upon completion of his/her term. During his or her one-year term as such, the President-elect will not have voting powers as a member of the Council.

The term of office for the President shall be two years. In the event that the President becomes unable to fulfill his duties, whether temporarily or permanently, the Council shall elect an Acting President from among the Council membership. Only the President will complete his or her term of office, if he or she is in office at the time he or she ceases to be a training program director. The President shall be the chief executive officer of the Association, shall control and manage its property, business and affairs, subject to the policies and direction of the Council, shall preside over the meetings of the Association and the Council, and shall be the chief representative of the Association at appropriate public forums. He or she will be assisted by other members of the Council as required. The President shall be responsible for organizing each of the meetings during his/her tenure.

Section 5.3 Secretary-Treasurer. The Secretary-Treasurer shall be elected from the membership of the Council. The term of office for the Secretary-Treasurer shall be one year. The Secretary-Treasurer shall serve as the chief financial officer of the Association. The Secretary-Treasurer shall have charge and custody of all funds of the Association, shall maintain an accurate accounting system and shall present financial reports to the Council in such manner and form as the Council may from time to time determine. He/she is authorized to collect dues and fees approved by the Council from the membership and to disburse funds of the Association in accordance with the instruction of the Council. The Secretary-Treasurer shall keep the minutes of all meetings of the Council, shall have charge and custody of the seal and records of the Council and the Association and shall be responsible for maintaining membership records and Association archives.

Article VI. Committees

Section 6.1 Generally. Except as provided herein, the President, with the advice and consent of the Council, may appoint standing or ad hoc committees to

address issues important to academic subspecialty internal medicine in relation to the operations of the Association.

Section 6.2 Appointment of Chairs; Terms; Liaisons With Other Organizations. The President, with the advice and consent of the Council, will appoint chairs of the committees. The term of service for a committee chair and members will be as designated in the appointment. The President and Council may renew membership on a committee following the completion of a term. The Association may establish liaisons with other organizations with Endocrinology, Diabetes, and Metabolism and have members from such organizations serve as members of standing or ad hoc committees.

Section 6.3 Nominating Committee. There shall be a nominating committee to receive nominations and to establish slates for candidates for election to Council and for the President-Elect. The nominating committee shall consist of four (4) members. The nominating committee shall make recommendations to the Council and will propose solutions to any disputed rights of membership among subspecialty societies and/or individual training director applicants.

Section 6.4 Vacancies. Vacancies in the membership of any committee may be filled by the President, with the advice and consent of the Council.

Section 6.5 Quorum. Unless otherwise provided in the resolution of the Council designated a committee, a majority of the whole committee shall constitute a quorum and the act of a majority of the members present at a meeting at which a quorum is present shall be the act of the committee.

Article VII. Indemnification

Section 7.1 Insurance. The Association shall maintain one or more insurance policies providing reasonable amounts of coverage for claims or losses arising out of an error, misstatement, act of omission, neglect or breach of duty committed by the Association or any individual acting on its behalf including a current or former officer, member of Council, employee or agent.

Section 7.2 Mandatory Indemnification. If a current or former officer, member of Council, employee or agent acted in good faith and in a manner in which he or she believed to be in the best interests of the Association, and paid or incurred expenses in the successful defense of a civil matter arising out of or proximately related to his or her services to the Association, he or she shall be indemnified against such expenses

actually and reasonably incurred in connection with such defense, to the extent not covered by any insurance or other third party payment.

Section 7.3 Discretionary Indemnification. The Association is authorized to indemnify, reimburse or otherwise provide for the payment of reasonable expenses paid or incurred by a current or former officer, member of Council, employee or agent in connection with services rendered against him or her by a third party. A current or former officer, member of Council, employee or agent shall be entitled to all rights conferred by Maryland Corporate Law, and terms contained herein shall be construed in accordance with their construction under Maryland Law.

Section 7.4 Terminology. The term "expenses" includes reasonable attorney fees and costs associated with the defense of any action, judgments, civil fines and interest. The term "indemnify" includes reimbursement or assumption of expenses incurred in the defense of any action.

Article VIII. Amendment of Bylaws

Amendments to the Bylaws are permissible if they are made in accordance with the following procedures:

a) A proposed amendment may be offered by any members of the Council of the Association or may be proposed by petition by ten per cent of the members of the Association.

b) The proposed amendment must be available to the members of the Council of the Association thirty days prior to the start of a meeting to consider the amendment. Such an amendment must be first approved by a majority of the full Council before it is passed on to the full membership for a vote.

c) The proposed amendment will be adopted upon the affirmative vote of at least two-thirds of the members participating in the vote. The proposed amendment will be normally voted on by mail ballot. Printed ballots will be circulated with the proposed amendment to all of the members of the Association. The ballots will be returned to the national headquarters of the Association and the results certified by the President or his or her designee.

Article IX. Construction of Articles of Incorporation and Bylaws

In connection with the construction of any instrument, or the use of any procedure, the laws of the State of Maryland shall prevail over provisions within the

articles of incorporation inconsistent with said law. If no provision of Maryland law governs, the articles of incorporation shall prevail over any inconsistent provision contained in the bylaws. If neither the laws of the State of Maryland nor the articles of incorporation govern, then these bylaws shall govern. If the laws of the State of Maryland, the articles of incorporation, or the bylaws do not govern, then a resolution by the Council by a majority vote of the number of Council members fixed by these bylaws, shall govern.

Article X. Conflicts of Interest

Each officer of the Association, and member of Council, recognizes that he or she has an affirmative duty to be aware of and properly manage conflicts of interest which may occur during their tenure:

a) Any duality of financial interest or possible direct or indirect conflict of interest on the part of any member of Council shall be disclosed to all other members and made a matter of records through a periodic procedure authorized herein and again when the interest becomes a matter of Council action.

b) Any Council member having a duality of interest or possible conflict of interest on any matter shall not vote or use his of her personal influence on the matter, and shall not be counted in determining the quorum for the meeting, even where permitted by the laws of the State of Maryland. The minutes of the meeting shall reflect that a disclosure was made, by whom, the abstention from voting, and the quorum situation.

c) The foregoing requirement shall not be construed as preventing a Council member from briefly stating his or her position in the matter nor from answering pertinent questions of other members of Council.

d) Every new member of Council will be advised of the policy on conflicts of interest upon election to Council.

e) All members of Council shall periodically file with the Secretary-Treasurer, a conflict statement, in a form and at a time prescribed by it, and such statements shall be made available as prescribed by Council.

f) The Association shall not enter into any agreement with a member of Council for the furnishing to it of goods, services or facilities. Such prohibition shall extend to the family of any member, to any firm owned or controlled by any member and/or any member of his or her immediate family.

g) All members of Council, by virtue of their election to that position, are in a fiduciary relationship to the Association and as such, in addition to the above, must act fully in accordance with common law of the State of Maryland relating to fiduciary duties.

h) These provisions, where not separately stated or excused, shall also apply to all employees of the corporation and all officers. As to all references to "family" such term shall include such person having a close personal relationship to the individual in question.

Article XI. Miscellaneous Provisions

Section 11.1 Fiscal Year. The fiscal year for the Association shall be the calendar year.

Section 11.2 Corporate Seal. The corporate seal shall be circular in form, bear the name of the corporation, the year of its organization and include the word "Maryland." The Secretary-Treasurer of the Association shall be the principal person responsible for the custody of the corporate seal, except as Council may otherwise provide.

Section 11.3 Unauthorized Use of Corporate Name, Property, etc. No member, officer, employee, or member of Council may use the Association's name, seal, logo, membership directory, or mailing list for personal, political or financial advantage. The Association's name, and any seal or logo, shall be registered as a lawful mark in such jurisdictions, domestic or foreign, as is necessary or appropriate. Council shall determine the circumstances and the persons authorized to use the Association's name, stationery, seal or logo.

Section 11.4 Audit. Within a reasonable time after the conclusion of each fiscal year, the financial records of the Association shall be audited by a certified public accountant selected by the Council. Any audit report, and statements of financial condition, shall be available to all members of Council promptly upon conclusion of the audit.

Section 11.5 Staff and National Office. The Association, acting through the Council, may hire staff to carry out the operations of the Association. The Association shall maintain a national headquarters to serve as a permanent repository for all Association records and membership information.

Section 11.6 Annual Dues and Fees. In the absence of action by the membership, the Council may set annual dues for membership in the Association; it may also levy user fees for special Association activities. Council is authorized to develop and implement revenues to support and further of the purposes of the Association.

Section 11.7 Compensation of Councilors, Officers and Members. Members and officers of the Council and any other members of the Association shall not receive salary, honorarium or similar compensation from the Association, except upon affirmative vote of a majority of the Council, for services rendered to the Association, any salary, honorarium or similar compensation authorized by the Council shall be reasonable for actual services rendered. Members and officers will also be reimbursed by Association funds for reasonable expenses approved by the Council for Association-related travel or other business; such reimbursement of reasonable expenses paid or incurred by the member of Council, on Association dues, shall not be treated as compensation.