



ALLIANCE
for ACADEMIC
INTERNAL MEDICINE

Primary Care Track Toolkit

Second Edition

September 2020

Starting a PC
Program

PC Scheduling and
Structure

Unique Curricula

**PRODUCED BY THE
APDIM PRIMARY CARE
FORUM**

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Curricula**

Produced by the APDIM Primary Care Forum
September 2020

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AAIM PRIMARY CARE TRACK TOOLKIT

Welcome to the second edition of the Primary Care Toolkit! Whether you are thinking of starting a primary care track or already are involved in a primary care residency program, this toolkit created by members of the APDIM Primary Care Forum offers resources to improve your program. The aim of this toolkit is to reduce your workload and let you learn from colleagues across the nation about what did (and didn't) work at their institutions. Our hope is to continue to update this toolkit annually, growing our curricular offerings over time.

The toolkit is broken up into two sections.

For those who are curious to learn more about primary care tracks, Section 1 offers an introduction on *how a* primary care track differs from a categorical track and a nuts and bolts guide to starting a primary care track at your institution.

Whether you already have a primary care track or are looking to start one, Section 2 offers interesting curricula and creative scheduling ideas.

In this second edition of the primary care toolkit, you will find many new additions. There are descriptions of various primary care training sites, outpatient coaching and direct observation techniques, and creative scheduling ideas. We have also provided curricula on chronic disease management, contraceptive education, social determinants of health, urgent care, home visits, advocacy, health systems and leadership, quality improvement, and outpatient point-of-care ultrasound. In the face of the opioid epidemic, we provide an outline for an introduction to opioid education, a robust opioid use disorder curriculum, and a detailed chronic pain management curriculum.

We hope you find this guide helpful and would love to hear your feedback on how to make this even better moving forward. For questions or comments, feel free to reach out at educationandresearch@im.org.

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How Does a Primary Care Track Differ from a Categorical Track?

Karen Chacko, MD & Halle Sobel, MD

Primary care internal medicine residency programs overlap with categorical residencies, but can and should be distinct in several ways. It is important to separate out key features of the primary care residency program in order to: define the program and the specialized training within it; to make it transparent to all that this is unique training for residents entering into primary care fields; to serve as a guidepost for other programs who are looking to develop primary care programs; and to foster enthusiasm among the residents and faculty in developing and maintaining careers in primary care.

Rotational Experiences

There are several unique rotations and/or elective experiences that should be integrated into primary care tracks.

Women's Health

Primary care residents should be trained on the routine care of the healthy female patient, contraceptive management, preconception counseling, breast pain, evaluation of breast masses, menopause, vaginitis, abnormal uterine bleeding, dysmenorrhea and female sexual dysfunction. (ref MSKAP). This experience may take place through didactics, as well as experiences in the primary care continuity clinic and/or in women's health clinics. Procedural training for nexplanon and IUD insertion/removal should be encouraged in the track.

Musculoskeletal Medicine

Musculoskeletal conditions are commonly seen in primary care practices and experiences in orthopedics, physical medicine and rehabilitation, sports medicine, rheumatology, podiatry and physical therapy are key components to the educational curriculum. Residents may trained in procedural techniques including joint injections or aspirations in simulation centers, their own continuity clinics and/or specialty clinics.

Dermatology

Given the multitude of skin complaints which are first seen by the primary care physician, trainees should develop comfort in managing and knowing when to refer acute skin conditions such as rashes as well as benign and malignant skin conditions. Procedures including cryotherapy, skin biopsies, simple incision and drainage procedures, wound care and skin tag removal should be a part of a comprehensive primary care training program. This may be taught by internal medicine or dermatology faculty. Some training programs may have procedure clinics for their residents to rotate through.

Substance Abuse and Addiction Medicine

Given the extent of substance abuse in the United States, many residency programs are training residents in the management of patients on Suboxone. Although residents cannot prescribe Suboxone, they can still participate in the waiver program required to obtain a Suboxone license and can prescribe upon graduation without repeating the waiver program. A rotation with an addiction specialist can be a valuable experience for a primary care track resident.

Mental Health

Given the shortage of mental health clinicians, primary care physicians are on the forefront of diagnosing and treatment many mental health conditions. It is crucial to train residents in the management of depression,

anxiety, attention deficient hyperactivity disorder (ADHD), post-traumatic stress disorder (PTSD) as well as the ability to know how to triage a suicidal patient.

Other

Many primary care tracks also offer flexibility to the residents to help choose rotational experiences which will help in their career and to help fill knowledge gaps. This may include additional experiences such as office ENT, internal medicine private practices, community health centers, outpatient cardiology, HIV clinic, travel clinic, telephone medicine, home visits and certification in treadmill testing. These experiences may vary regionally by what resources are available at the sponsoring institution.

The Continuity Clinic

The clinic experience is the cornerstone of training for primary care residents. The environment should be supportive with faculty and staff to foster an excellent clinical and educational experience. This experience is often one of the few with a robust continuity experience as residents learn to care for a panel of patients over a two to three year period. Many programs attempt to place primary care residents exclusively into patient centered medical homes (PCMH), or at the very least those that function like a highly skilled medical home. In the VA clinics, this may take the form of a patient aligned care team (PACT). Various models are used for clinic, but when thinking about experiences for primary care residents, it is advisable to have access to social workers, care managers, and inter-professional teams so that residents participate in inter-professional care. It is desirable to prioritize primary care residents to also experience clinic sites that have integrated mental health, or that have ready access to mental health professionals and services. Furthermore, many primary care residents enjoy access to underserved patient populations so taking that into consideration when assigning clinic sites for these residents is important.

Curriculum

The primary care curriculum is discussed elsewhere in this document in detail, but in general it would be important to have a dedicated curriculum that is separate and distinct for the primary care residents. Ideally, you would be able to gather your primary care residents in small groups (often by year of training, but also possible by cohorts or clinic weeks if necessary) to deliver the curriculum. The curriculum should cover components that are not traditionally taught to all internal medicine residents with consideration for the following topics: practice management, population health and health policy, ambulatory transitions (e.g. inter-visit care, post discharge clinic, etc.), preventive medicine, evidence-based practice, meaningful care of the geriatric patient, cross-cultural/patient-centered communication, team leadership, behavioral medicine/mental health, telephone medicine and pain management, addiction medicine.

Community Involvement

Establishing tangible ties for the primary care residents to interact with and contribute to the community is one of the hallmark features of successful primary care programs. Examples of tangible ties could be community outreach, participation in health fairs or free clinics, service projects within the community, educational outreach, visits to local churches/nursing homes/organizations.

Transition to Practice

As primary care residents become ready to transition to an outpatient practice, it is important to cover additional topics such as coding, billing, documentation requirements for special visits such as Medicare wellness visits and transitions of care visits as well as how an efficient office staff interfaces with the day-to-

day workflow of an efficient physician. Residents may also gain experience through supervision in an after-hours call rotation and weekend acute clinics.

Conclusion

Primary care internal medicine programs should have rigorous clinical training that prepares them for practice in the variety of fields that encompass general internal medicine. Distinct offerings for clinical rotations, unique curriculum, highly functional and energized continuity clinics, and an emphasis on ties to the community are some of the defining features for successful training programs. Each primary care program should take in to account their local faculty expertise, unique clinical settings, and surrounding community as they design these features.

Logistics of Establishing a New Internal Medicine-Primary Care Program

Marc Shalaby, MD, Stacy M. Higgins, MD, Jason Ojeda, MD &

Paul O'Rourke, MD, MPH

Well delivered primary care (PC) is associated with improved health quality as well as lower health costs (1-3). However, it is projected that an additional 33,000 practicing PC physicians are needed to accommodate an expanding, aging population by 2035 (4). Such an expansion will require a major investment in the pipeline of PC clinicians to lead population management initiatives, engage in team-based care, slow the growth of rising health care costs, and drive quality of care.

In response, there has been a refocus at the national, state, and local levels to grow the number of trainees in PC programs (5). But even with desire and funding, the logistics of starting a PC track/program can be overwhelming. This piece is designed to give a general outline of issues to be considered as one tries to create unique and attractive training pathways to better prepare residents for ambulatory practice and give them the skills they need to navigate and excel in the future.

Building a Coalition

As you build your coalition, begin by assessing the readiness for change in your program, department, and institution. You can illustrate that a PC track/program is necessary by aligning the work of building a PC program/track with current institutional needs and priorities. There are obvious educational stakeholders with whom you can quickly align- program directors, medical school leaders and educators, general medicine division chiefs, department chairs, and the designated institutional officer. Most of these individuals should recognize the educational need to provide a balanced PC training program that will offer a more competitive recruiting strategy for talented applicants. In addition, division chiefs and chairs may have a vested interest in retaining PC graduates within the institution to help support the PC mission and subspecialty referral base. This need to “build the PC pipeline” will also resonate well with accountable care organization leadership, the executive c-suite, quality and safety leadership, and community clinics. A case could also be made that local payers would be interested in increasing the number of skilled, “practice-ready” PC physicians.

In the current climate, it is likely that every institution has a growing PC workforce as part of its long range strategic plan. Local and regional competition for qualified and talented providers will be fierce given the current and predicted shortages of PC providers. Institutions that can “recruit from within” may fare better than those institutions who must recruit outside.

Funding

If you are adding PC slots on top of your current complement of residents, then additional funding for resident salaries and benefits is required. This expansion is predicated on the requirement that the internal medicine residency program does not exceed its approved size as determined by the Accreditation Council for Graduate Medical Education (ACGME). If the program wishes to add PC positions to its current complement, it must justify to the ACGME the educational need and the capacity to do so (6). This is not a consideration when the PC slots are carved out of an existing categorical residency program. In addition, the director of the new PC program will need time and salary support to build, grow, and maintain the program. If there are core faculty members who will work alongside the director in curriculum development and delivery, funding to support their time is also necessary. Administrative support will also be required for residency management and operations.

If an institution is operating below their Centers for Medicare and Medicaid Services (CMS) cap, it can garner additional funding merely by expanding the number of residency positions offered. This would allow direct funding to support the new PC positions. If an institution is already at or above their CMS allotment, it would either need to reallocate the current institutional trainee complement to allow for additional PC slots or directly subsidize the cost of expanding GME positions by creating “over the cap” positions.

In addition to CMS, there are several other funding sources for PC training programs. For 50 years, Title VII of the Public Health Service Act has provided grants to support PC clinician training, as well as curricular and faculty development. Administered by Health Resources and Service Administration’s Bureau of Health Professions, this funding is available to GME programs in family medicine, pediatrics, general internal medicine, geriatrics and physician assistants’ programs. Priorities are currently focused on supporting PC educational programs that promote interprofessional education, meeting the needs of a diverse patient population, and increasing the diversity of the workforce. Grant funding can be used to support faculty salaries, resident recruitment activities, travel for residents in line with grant aims, and other activities that will promote the grant’s objectives. Applying for Title VII funding is a competitive process, and over the last 10 years, Congress has cut the total dollars allotted to the program. Calls for applications generally come out in the fall with deadlines toward the end of the calendar year (7).

The Veterans Access, Choice and Accountability ACT (VACAA) GME expansion provides financial support to train more residents in PC, ideally in high need geographic areas. The goal of this funding is to add up to 1,500 new VA GME physician residency positions over five years in partnership with established academic affiliates. Applications for VACAA funding to support resident stipends are due in the spring for the following academic year (8).

To address individual state predicted physician shortages, some states provide funding directly to community hospitals to start or expand PC training programs, particularly in rural areas (9). For example, in Georgia, the state made funding available to hospitals without established GME programs to expand new training slots focusing on PC programs and general surgery, particularly in rural parts of the state (10). This source of revenue is particularly of interest for new PC training programs being initiated in affiliation with a community hospital without an academic or VA partner.

Primary Care Track or Program

The distinction between a PC “track” and a PC “program” can be subtle, but the latter reflects a larger number of residents, a more distinct curriculum, and a higher degree of upheaval to create it. Tracks have no specific ACGME or matching implications and are often the easiest way of starting a PC endeavor. They can be led by an associate program director, a member of the core faculty, or the director of the continuity clinic site. We feel that ideally, a 0.50 FTE is required to build a program/track, but at least 0.35 FTE is essential. Residents may elect to join a PC track after matching, or at any point during their residency. In a track, the PC-specific curriculum is often built around the same scheduling template as the core program. Inpatient rotations and curricula are generally the same as the categorical program, although there may be fewer number of inpatient rotations. The PC curriculum generally includes more time in continuity clinic and other ambulatory venues. Tracks may choose to add additional clinic blocks to the schedule and increase time in clinic without building an entirely different schedule for the PC residents.

Primary care programs tend to be larger and have a more distinct clinical curriculum from the categorical program. Given the need for consistent numbers of PC residents for curriculum planning and clinical education, many PC programs have chosen to have a separate National Resident Matching Program (NRMP) match number. This allows some distinction from the categorical or “core” program. It also means trainees are committing to a PC program when they submit their rank list (although most have the flexibility to allow transfer into the program after match). A separate match number can also aid in the recruitment of applicants with particularly high interest in PC who may be unwilling to match into a residency program if their acceptance into the PC track is not guaranteed. There are a handful of programs that are entirely PC programs with no associated categorical program. They have their own distinct IM primary care NRMP code (11).

Structure of Ambulatory Time

As part of any PC program, additional time in ambulatory training for the PC residents is necessary. How this ambulatory time will be distributed over residency will depend on the environment of the core program and the institution. Ambulatory time can be garnered from subspecialty elective time, previously scheduled ambulatory blocks, or from inpatient rotations.

If carving out a PC track from a core program, the size of the track and the amount of ambulatory time may be limited by the “staffing needs” on the inpatient services. If there is an overabundance of residents, the PC residents can be removed from inpatient service time relatively easily, although this will shift some additional inpatient duties to residents in the categorical program. If inpatient scheduling is tight, removing a significant number of PC residents from the pool may necessitate decreasing the number of services covered or restructuring of the services to allow for less resident coverage. Either way, this will create an imbalance of inpatient responsibilities between categorical and PC residents. This may be the first time an imbalance in work distribution amongst residents is perceived, so one must message this well to all residents. Recognizing and acknowledging this prior to any change is critical. Establishing the core mission and objectives of the PC track will guide the rationale for differences in training exposure for the PC residents. If one is expanding the residency by adding PC residents, the “staffing needs” of the inpatient services are less of a problem as any additional residents will add scheduling flexibility to the whole program.

X+Y scheduling models for PC programs may have advantages over traditional models. Such models can provide extended and protected time in ambulatory settings and allow for more consistent content delivery of didactic/small group curricula (12). By their nature, X+Y models decrease the conflict of simultaneously caring for patients in the inpatient and ambulatory settings. Furthermore, the model allows for more consistent resident scheduling in the clinics and may allow residents to return to their continuity sites at regular intervals. Importantly, recurrent and consistent immersion experiences in ambulatory care can build a culture of PC and create camaraderie among PC residents, office staff, and faculty. Such scheduling can improve learner/faculty continuity and allow for more effective skill development, observation, and feedback (13). However, these stated advantages are balanced by an increase in the complexity of scheduling and challenges of outpatient care when residents are not in their clinic. These challenges are not unique to X+Y models, but do require some forethought and coverage strategies to insure continuity of care for patients is not negatively impacted.

Primary care programs (as opposed to tracks), given their larger size, can have a different scheduling template than the categorical program. For categorical programs employing X+Y scheduling models, the PC program can function in the same model with additional ambulatory time taken from the “X” blocks. Alternatively, a number of programs have been successful in having the categorical X+Y program interwoven with a different PC X+Y model. For example, at the University of Pennsylvania, the categorical 6+2 scheduling model is

meshed with the PC 4+4 model. Furthermore, X+Y scheduling can be employed for the PC program even when the categorical program maintains traditional scheduling, although schedules made up for 13 four-week blocks are easier to mesh than those that are based on the calendar month.

Continuity Clinic

Continuity clinic is the cornerstone of any PC program. Ideally, immersion blocks should be utilized to allow for focused practice in the ambulatory training environment. This can occur as consistent recurring blocks of ambulatory time as in an X+Y model or a series of immersion ambulatory blocks in a traditional model. If immersion blocks are not possible, any additional clinic time is beneficial. There is no ideal number of clinic sessions for competence, but PC programs ideally should aim to exceed the current standards of 130 clinic sessions over three years. Numbers of patients scheduled per session should reflect local trends and capacities based on patient population, preceptor capacity, no-show rates, and the clinical environment.

Capacity in the clinic may be the rate limiting step in the size of a PC program. If the PC residents' continuity clinic site is in the same physical space as the categorical residents, and PC residents will have more clinic sessions there, it is important to determine if there is capacity to do this (i.e. enough clinical space, clinic staffing, and faculty preceptors). If the clinic site is already at capacity, one should consider adding or restructuring a new clinical site specific to the PC residents.

A separate clinical space may allow for the opportunity to designate certain faculty as "PC core faculty." A limited number of dedicated faculty provides an opportunity for enhanced faculty development which can result in more consistency in teaching skills, precepting styles, and supervision. A PC clinic environment staffed with talented and dedicated faculty provides the ideal setting for frequent direct observations of residents, real-time clinical coaching, more thorough and effective evaluations of resident milestones, and would be an ideal venue to improve on specific skills in need of focused practice. A separate clinical site may also allow for more manageable initiatives in quality improvement, patient safety, and population health. Finally, housing PC residents together as a group in a single continuity clinic site allows the building of camaraderie amongst the residents, models a group practice, builds mentoring relationships with core faculty, and creates a supportive environment where a career in PC is not seen as an unusual choice of few, but the norm chosen by the majority. Separate physical clinical space for the PC residents is by no means a necessity, and programs who are not in a position to provide this must look for creative ways to enhance the PC experience/culture in clinic so that it is not merely more time in the categorical clinic.

Second Site Continuity Clinic Experiences

Primary care tracks/programs may also consider having the residents participate in "second site" continuity clinics. These are alternative ambulatory sites through which a PC resident rotates on a continual basis over one to three years and may involve a patient population in which the resident has a particular interest. Experiences could include, but are not limited to, community health centers, outpatient HIV care, women's health, prison health, Latino health, refugee care, LGBTQ care, homeless care, and private practice. In addition to providing excellent training venues for residents, working in such clinics allows residents to provide direct clinical service to the community and provides an opportunity for these clinics to recruit new graduates. These advantages may be an effective negotiating strategy when such relationships are entertained. These second site clinics also provide a unique experience designed specifically for the PC residents, thus increasing uniqueness and desirability of the track/program.

Other Clinical Experiences

In addition to continuity clinic, other ambulatory clinical experiences are vital to a resident's development. Ideally, all residents should have a core ambulatory clinical curriculum and opportunity for additional and elective ambulatory training. These might include ambulatory rotations through both internal medicine specialties as well as non-internal medicine specialties such as dermatology, ophthalmology, musculoskeletal medicine, and neurology, to name a few. Special clinical experiences, such as home visits, may also be valuable learning opportunities for PC residents.

Inpatient Clinical Experience

Primary care programs or tracks may choose to have their residents' inpatient experience look very similar to, or very different from, their categorical colleagues. The congruity between the PC and categorical inpatient experience depends on the culture of both programs and the institution. Some programs go to great lengths to assure almost identical inpatient experiences for all residents. There are a number of reasons for this including wanting to produce highly functional general internists who may choose to enter PC, hospitalist medicine, or specialty fields. This may be important as some PC-bound residents may change their minds during residency. There may also be a concern that PC residents participating in a less rigorous inpatient clinical curriculum may be perceived as less competent by the residents and faculty in the categorical program.

Alternatively, depending on the setting, a program may feel that the inpatient experience should be different for PC residents and may advocate for changes like less intensive care unit time, less subspecialty time, and more focus on general medical rotations. The latter may enhance experience with transitions and coordination of care with the ambulatory setting, which is a valuable focus for PC-bound residents. If one's program has multiple inpatient clinical sites, one may choose to focus the inpatient experience for the PC residents at a different site than the categorical residents - perhaps a site with more of a "community hospital" feel. The right balance of inpatient experiences would allow PC residents to be better prepared for outpatient medicine without limiting their preparedness for inpatient and/or subspecialty careers. This can be accomplished especially if you are able to remove some of the redundancy in clinical training that can occur as a consequence of institutional service needs.

Curricular Content

In addition to clinical training, every PC program should have a robust educational curriculum. The cadre of topics can be delivered in didactic fashion, small group interactive seminars, resident-led endeavors, or in learning collaboratives with other programs. In addition to standard ambulatory medicine topics (e.g. hypertension, diabetes, screening guidelines), seminars provide an ideal venue for hands on physical exam education and procedural skill development. Topics such as communication skills, narrative medicine, wellness, as well as career and financial planning can complement the clinical curricula. By covering topics such as global health, medical education, local community resources, public health, health policy, health services research, quality and safety, population health, and mental health, the breadth is expanded. Supplemental content may also allow for novel curricula in travel medicine, telemedicine, inter-visit care, billing and compliance and even electronic health record optimization. This list of educational opportunities provided is not meant to be exhaustive, but rather illustrative of what can be accomplished. Small group seminars may also provide an opportunity for community building, camaraderie, and culture building.

Primary Care Culture

In addition to providing a superb learning and patient care environment for PC residents, a major goal of the program should be creating a special community and culture around PC. Providing unique, interesting, and meaningful clinical venues and classroom teaching can make the program desirable and perhaps preferable to the ambulatory training provided by the categorical program. A small, dedicated faculty has the potential to provide clinical coaching and mentorship to PC residents that may not be possible in the larger program. In addition, exposure to topics vital to the future of PC (e.g. population health, quality and safety) will help PC residents feel that they are on the cutting edge of medical education and are prepared for the future of medicine.

Conclusion

The expansion and aging of the population necessitates training more primary care physicians to serve the needs of our country. Internal medicine-PC programs are well positioned to fill this gap by creating a workforce that is facile in the concepts of population health, interprofessional team-based care, transitions of care, and quality and value-based care. In this piece, we have outlined a template for steps in creating a successful primary care track/program from scratch. Ensuring the support of key stakeholders within GME, the C-suite, and the medical school will facilitate and drive the mission. Securing funding for new resident positions as well as support of faculty intimately involved in its formation and sustenance allows a program to move forward. Designing the interplay between ambulatory and inpatient time, the structure and location of continuity clinic, and the curricular content will allow the culture of the program to succeed and blossom.

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Exposure to Varied Primary Care Experiences

Rebecca Andrews, MS, MD & Jillian Goldsmith

Within the University of Connecticut's Internal Medicine Residency are two longitudinal primary care tracks (office-based medicine and primary care residency expansion). Most residency programs schedule their residents' continuity clinic in a teaching clinic where the attending faculty may or may not have their own practice. Patient populations are often not representative of a true primary care practice panel; rather, resident patient panels typically have a higher population of patients with mental health, socio-economic, and health literacy challenges, among others.

Ambulatory blocks for the residents typically consist of a four to six week experience with morning clinic in the location of their continuity clinic (one of four health care organizations) and afternoon specialty clinics that provide experiences in core medicine rotations such as gastroenterology and cardiology. Residents spend all three years attending the same patient panel at the same continuity site and do not receive exposure to the real-life practice settings they will encounter after graduation.

The primary care track residents have experiences in multiple settings to rectify the lack of familiarity to practice choices. It also alleviates the sensation that "only residents" see challenging patients. The primary care tracks offer five experiences.

Community Health Center

Community health centers (CHCs) are an ideal place for residents to learn about care coordination, pharmacy assistance, multi-disciplinary care, advance access scheduling, and embedded mental health providers. These centers are a safety-net for patient care throughout the country and some have partnered with academic health centers already making it easy to arrange such an experience. For those CHCs not affiliated with an academic health center already, preceptor training and a balance of productivity and teaching need to be arranged before beginning.

Private Practice – Suburban

Seeing primary care performed by a private practice physician offers the opportunity for residents to see a different practice model from a financial, schedule, and hired support staff perspective. Ambulatory rotations in the primary care tracks utilize offices located in local suburban towns with established patient panels. Residents usually begin by shadowing until they understand the workflow of the office and then see patients in a traditional preceptor model. The attendings are supplied with a PowerPoint about resident education and clinical precepting, with individual mentoring as needed. Resident feedback about sites is essential to cultivating a resource group of appropriate sites.

Private Practice – Urban

Similar to the suburban private practice, an urban private practice has the opportunity to teach residents about staffing and financial models. The urban practices utilized belong to larger Accountable Care Organizations (ACOs), allowing residents to learn about the true financial impact of quality assessment. Another benefit to this experience is the understanding that develops from seeing the diversity of an attending's patient population.

Academic Primary Care Practice

Residents rotate through the academic primary care practice as well. They work with their faculty seeing patients in their practice and experience the clinical side of a medical educator's job. During this experience, residents are taught the "business of medicine" including insurance exchanges, health care law, and billing.

Department of Corrections

Although the paperwork and security presents a challenge, rotations with the department of corrections are rewarding for residents. The opportunity to practice primary care and treat HIV, hepatitis C, minor surgical procedures, and the traditional chief complaints is unique. Additionally the residents see a cost-contained system that has the ability to bargain for medication prices through contracts similar to the VA, thus experiencing an approach similar to health care systems in Canada and the United Kingdom.

Creative Scheduling

Rebecca Andrews, MS, MD & Jillian Goldsmith

Overview

The University of Connecticut's Internal Medicine Residency has two longitudinal primary care tracks within the program (office-based medicine and primary care residency expansion) that use creative scheduling to expose residents to a more realistic primary care experience.

The internal medicine residency is limited to ambulatory blocks and the traditional half-day continuity clinic for exposure and learning outpatient medicine. These ambulatory blocks for all residents typically consist of a four-to-six week experience, with morning clinic in the location of their continuity clinic (one of four health care organizations) and afternoon specialty clinics that provide experiences in core medicine rotations such as gastroenterology and cardiology. The four health systems are varied (academic, Veterans Administration, Accountable Care Organizations (ACOs)) however; the residents are only exposed to primary care at the site of their continuity clinic. Our program is currently exploring options for a less frequent "all day" clinic on call block rotations as a means to limit the tension between in- and out-patient duties.

Residents interested in primary care have a disjointed experience and not all specialties are committed to teaching from a perspective of a resident heading into primary care. Therefore, we created several options for residents. Both of these options had one lead director who also served as a mentor and/or advisor. The office-based medicine (OBM) track residents "opt in" when filling out schedule requests in January of their PGY-1 year. This track has morning ambulatory block clinics scheduled with a dedicated team of primary care faculty in order to expose residents to skilled, enthusiastic preceptors. The exposure to attendings in primary care who "walk the walk" elevates the stature of primary care as a career choice. Electives were also changed to be outpatient-based. This allows the residents to see the full course of a disease from a specialty perspective, increase their skills in chronic disease management, and learn appropriate referral mechanisms (timing, coordination of recommendations, etc.) Lastly, afternoon specialty time was comprised of experiences deemed important for excelling in the practice of primary care (sports medicine, geriatrics, hypertension, ophthalmology, urology, physical therapy, and ENT).

The overwhelming success in the OBM track led to an application for a Health Resources and Services Administration (HRSA) primary care expansion grant (PCRE). This track was developed to be started at the matriculation of residency based upon the interest expressed from matched residents during the application season. The PCRE track mirrors OBM in its faculty support (primary care physicians as advisors), but the residents are also placed into the faculty primary care academic practice for their continuity clinic together on the same day. This is the same practice the OBM track residents attend for their ambulatory block. The PCRE track is unique in that ambulatory experiences were no longer grouped into four-week blocks. Instead, year-long electives and primary care experiences are set up as "longitudinal blocks." Elective time was traditionally spent with the specialty attending or a fellows' clinic set-up where they could have their own cohort of patients to follow. This greatly increases their comfort in managing disease diagnosis and treatment. For example, a patient with palpitations that is new to cardiology clinic and is eventually diagnosed with atrial fibrillation will be seen by the resident. During the progression of care, the resident would learn about palpitations work up and evidence, atrial fibrillation causes, management choices, anticoagulation, and appropriate use of Holter monitor for rate-control assessment.

Logistics, Challenges, and Solutions

Logistics

- A master schedule needs to be completed alongside the whole residency's schedule
- Recruitment and advertising needs to occur all year
- A track director and administrative support person are essential

Challenges

- Sufficient supply of skilled primary care physicians with the time and interest in graduate medical education teaching
- Compensating attending schedules for preceptor teaching time
- Resident schedule changes
- Finding the right patient volume
- Demand on specialists' time
- Administrative time for a director and administrative support
- Residents looking for a change of clinic or a new preceptor asking to be a part of OBM

Solutions

- The onus is on the resident to manage their schedule and changes are not allowed with less than six weeks' notice, barring emergencies or health issues. This allows the resident to understand the true challenges in disrupting care for patients.
- A dedicated director is a necessity. This person is needed for substantial education of new faculty coming into the program and administrative leadership.
- Once established, these tracks served as an internal recruitment tool for new primary care physicians that had expertise in primary care, systems-based practice, and could start at a higher patient volume per clinic session. This "return on investment" produced institutional support moving forward.
- Eventually, the residents demonstrate increased efficiency in outpatient medicine and reduce the workload of the precepting attending. This trade off and the emotional connection that develops when working with residents long-term are the two reasons our specialists continue with the program year after year.
- A skilled administrative assistant for the coordination of schedules is required for the track director to be successful
- The OBM track director met with individual residents as the track grew to 22 of our 120 residents. This had affected productivity and patient care at their "home" continuity site. Residents interested in primary care, geriatrics, sports medicine, and primarily outpatient specialties (endo/rheum) were allowed to continue in the track. Residents who were not interested in primary care were required to use an elective block as an "OBM month."

Assistant Ambulatory Chief Resident Role

Peggy Leung, MD & Lee Shearer, MD

Goals of the Program

In our internal medicine residency primary care track, we continuously innovate our curriculum to build resident educators, create opportunities for resident engagement in their practice settings, and cultivate an empowered workforce of future primary care leaders. Here, we describe the Assistant Ambulatory Chief Resident (AACR) position, a residency elective and leadership role developed for our PGY-3 primary care residents. The AACR elective rotation mimics the responsibilities of a junior faculty clinician educator, providing structured and mentored avenues for building clinician educator skills and contributing to the administrative workings of an academic primary care practice, while also pursuing clinical skills and scholarly endeavor. In this mixed clinical/educator/administrative leadership role, we aim to empower residents to take an active role in trainee education, in the resident clinic community, and beyond. We hope the exposure will help them understand the richness of the academic clinician educator/director role and train them as leaders in their future careers.

Structure of Elective

Length of Elective

In the current iteration of the role, the length of the AACR elective is eight to 12 weeks. This may vary depending on your residency/programmatic needs, though we suggest that an extended immersion is preferable.

Overview of Elective

The rotation is comprised of 50% clinical time, including direct patient care and assistant precepting. The remaining 50% is administrative time, devoted to didactic teaching, participation in program leadership committees, quality improvement (QI) work, scholarly pursuit, and practice administration.

Sample Schedule over One Week

- Two half-days in primary care continuity clinic, one of which the resident is paired with a continuity medical student for dedicated education/ mentorship opportunities. All receive training on how to work with medical students prior to the elective.
- One half-day in a chosen second continuity clinic, characterized either by a different practice setting or a specialized outpatient population (for example, infectious disease clinic, home visits, weight management clinic, HIV medicine, etc.) The selection is personalized to the educational and career goals of the resident.
- One half-day assistant precepting for resident-peers of all levels. An ambulatory attending preceptor observes and provides feedback to the AACR on their precepting skills.
- One half-day protected time for clinical follow-up and to continue with endeavors such as their longitudinal scholarly pursuit, which spans all three years of residency.
- One half-day medical student education session, involving facilitating both inpatient and outpatient clerkship OSCEs, providing didactics/case review for clerkship students, co-leading tutor groups, etc.
- One half-day protected time to participate in practice-level and residency-level committee work, including faculty meetings, staff meetings, task-force meetings, curriculum committee meetings, residency meetings, etc. In these settings, surrounded by core faculty, program leaders, and practice

leaders, the AACR is exposed to the inner workings of running a residency program and a practice and provides a valuable voice as representative and advocate for residents.

- The remaining three half-days are flexible administrative time for the AACR to address additional duties detailed in the responsibilities section.

AACR Responsibilities

- Lead all ambulatory morning reports (average two per week) with the support of the PGY-4 Ambulatory Chief Resident and ambulatory attending of the week.
- Work side-by-side with the Ambulatory Chief Resident to trouble-shoot the daily logistical complications, resident needs, and patient needs that inevitably arise in a large ambulatory training practice.
- Manage scheduling for evening and weekend resident call responsibilities.
- Participate in and carry out practice-wide educational and QI initiatives, as identified by either the resident or the practice.

Additionally, there are varying tasks that the AACR assists with depending on the time of academic year. Early in the year, they help lead the effort to welcome and orient new interns to ambulatory medicine. During recruitment season, they assist with applicant outreach and tours. Near the end of the academic year, they help coordinate career/mentorship events and resident participation in academic conferences.

Support Provided

The AACR is a highly-valued role at our institution, supported by a common vision shared by the Internal Medicine program director, the ambulatory practice medical director, the practice administrator, clinical staff, and ambulatory faculty. Given the high degree of responsibility expected of the AACR, direct faculty mentorship for the resident in the role is robust. At minimum, the AACR:

- Meets weekly with the Primary Care Program Director to ensure that global goals for the elective are defined and pursued. This is a continuation of structured career support threaded through all three years of the primary care track residency.
- Meets prior to all ambulatory morning reports with the Ambulatory Associate Program Director to discuss educational goals, content creation, and educational strategies.
- Works with the Ambulatory Chief Resident daily to accomplish designated responsibilities and receive near-peer mentoring.

The result is a resident empowered at a high level to lead, educate, and drive practice change.

Challenges

- In our current version, all Primary Care track PGY-3 residents are expected to participate in the AACR role as an extended elective (four to six residents per academic year). As residents may exhibit varying levels of skill for the different AACR responsibilities, individualized mentorship from faculty who are familiar with the responsibilities of the role, with residency expectations, and with the practice setting is imperative. At our institution, there is also an assistant chief resident position/elective on the inpatient side that is elected by house staff. That may be a consideration at your institution depending on your local level needs and objectives of the program.
- Engaged faculty members should be selected and their time should be supported to ensure high satisfaction and quality.

- Varied demands on the AACR's schedule may require flexibility with weekly scheduling of clinical and other duties.
- Over time, purely administrative responsibilities tend to accumulate and fall on the AACR. It is important to continually re-evaluate which of these responsibilities add to or detract from programmatic educational goals.

Conclusion

The AACR role can be molded depending on the varying needs of a residency program. We have found the rotation to be highly successful in preparing residents for independent practice, performing/applying core components in the clinical educator role, providing exposure to the financial/administrative side of an academic primary care practice, and further instilling in residents a greater sense ownership over their primary clinic site. We see that even after completing their time as AACR, residents' confidence and giving spirit of support does not wane. Despite having only one formalized AACR at any particular timepoint, by the end of the academic year, our clinic has in reality five to six residents who maintain the values and skills of that role.

Outpatient Coaching and Direct Observation

Stasia Reynolds, MD & Ryan Graddy, MD

Background

Direct observation is a key component of resident educational assessment and is explicitly included in the Accreditation Council for Graduate Medical Education (ACGME) Milestones. Outpatient direct observation has been shown to improve the quality of trainee evaluations, but occurs less frequently than recommended due to limited resources (time, preceptors, space, etc.) and a lack of structure to accommodate it.

What Is Coaching?

Clinical coaching provides a more in-depth one-on-one experience than traditional outpatient precepting, which often includes minimal direct observation of clinical practice. Coaching focuses on the discrete development of specific skills. This is achieved through faculty direct observation of resident clinical practice followed by focused feedback. Learner self-assessment is a crucial part of coaching and informs the feedback discussion. The big picture goal of feedback sessions is to empower the learner to achieve deliberate practice through rigorous self-assessment.

Our Experience

At the Johns Hopkins Bayview Internal Medicine Residency, we have implemented structured longitudinal coaching relationships between general internal medicine and geriatrics faculty and all residents in the outpatient GIM practice. The 48 internal medicine residents are divided into four teams, each led by a faculty coach. Over the course of the academic year, coaches are tasked to conduct at least one to two mini-CEX exercises and two directly observed complete outpatient visits for each resident on their team. Complete outpatient visits are evaluated using a structured checklist based on tenets of clinical excellence that we have adopted from our earlier coaching work (see **Appendix A**). Focused feedback and debriefing sessions occur at the end of each patient encounter. The overall time for each coaching session including preparation, direct observation, and debriefing takes an average of one hour. The four faculty team coaches receive 0.05 FTE salary support for these coaching sessions in addition to 0.1 FTE received by all preceptors for each half day/week standard precepting.

We have found that these longitudinal coaching relationships help to provide real time, precise formative feedback to residents and that coaching is well-received among housestaff as well. Cumulative outpatient evaluations of residents are richly informed by this additional information.

Practical Considerations

Direct observation and coaching is a time-intensive but important part of residency education. Specific suggestions for integrating clinical coaching into already-busy outpatient resident practices include:

- Use a checklist and share with residents in advance. Structuring the direct observation encounter helps to maximize the time spent and improves efficiency during feedback. See Figure for proposed checklist.
- The Mini-CEX is a great tool, but is not granular enough to hone in on specific clinical skills. For coaching specifically, it helps to have a higher level of detail – both to improve specificity of feedback and to make clear expectations to residents.
- Implement coaching during the first patient visit of the session, or another period of relative “down time” in precepting. We’ve found that the start of each session affords an opportunity for preceptors

to spend time in direct observation with residents because there is no competing demand for precepting requests.

- Consider protecting time for a faculty coach to conduct direct observation during a clinic session they are not scheduled to precept other learners. This is not always possible, but can help to reduce the burden of competing responsibilities on the coach/preceptor.
- Single coaching episodes are beneficial. While longitudinal coaching relationships offer the most robust opportunities for evaluation and development, even one directly observed session has been shown to be valuable for the resident and preceptor.
- If a complete visit cannot be observed, focus the coaching episode on a particular portion of the visit. Don't let perfect be the enemy of good. Pick a particular area of clinical skills to focus on for the portion of the visit observed and use an abbreviated checklist.
- Feedback sessions can be deferred to the end of the session when needed. There is not always time to debrief and provide feedback immediately following a directly observed visit. We have found that prioritizing time at the end of the clinic session for feedback still offers a great opportunity to discuss while the encounter is fresh in both participants' minds.

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Appendix A: Ambulatory Coaching Checklist

OBSERVER NAME: [Click here to enter text.](#)

RESIDENT NAME: [Click here to enter text.](#)

DATE: [Click here to enter text.](#)

Communication and interpersonal skills:

1. Fully present / No evidence of distraction: ☐ Y ☐ N
2. Leads and follows with open-ended questions: ☐ Y ☐ N
3. Listens attentively: ☐ Y ☐ N
4. Avoids medical jargon: ☐ Y ☐ N
5. Assesses understanding (teach back): ☐ Y ☐ N
6. Counsels on behavioral change: ☐ Y ☐ N ☐ N/A

Use of EMR:

7. Positions self to facilitate communication: ☐ Y ☐ N
8. Before & after charting, gives undivided attention to patient: ☐ Y ☐ N
9. Collaborates with patient when using EMR (pt-centered): ☐ Y ☐ N
10. Maintains adequate eye contact with patient while using EMR: ☐ Y ☐ N

Diagnostic acumen:

11. Correct PE technique (auscultate directly on skin, remove clothing to examine when appropriate):
☐ Y ☐ N ☐ N/A
12. Appropriate completeness of exam: ☐ Y ☐ N ☐ N/A
13. Asks sharp, thoughtful, smart questions: ☐ Y ☐ N
14. Obtains adequate and appropriate information from patient to arrive at plan/diagnosis: ☐ Y ☐ N

Skillful negotiation of the health care system:

15. Demonstrates ability to prioritize and address multiple issues during appointment: ☐ Y ☐ N ☐ N/A
16. Manages visit time appropriately: ☐ Y ☐ N
17. Addresses social/financial concerns in deciding care plan: ☐ Y ☐ N ☐ N/A
18. Outlines reasons to re-contact/re-visit: ☐ Y ☐ N
19. Closes visit with open-ended question: ☐ Y ☐ N

Knowledge:

20. Interpretation and formulation of data is appropriate to problem: ☐ Y ☐ N
21. Creates comprehensive management plan for patient: ☐ Y ☐ N
22. Patient understands the comprehensive management plan: ☐ Y ☐ N
23. Describes evidence base for decision to patient: ☐ Y ☐ N ☐ N/A

Notes:

Teaching Chronic Disease Management

Halle G. Sobel, MD & Margaret Lo, MD, FACP

Introduction

Ambulatory education for internal medicine residency programs must have a robust chronic disease management curriculum. Residents must learn management through direct patient care as well as through didactic or active learning experiences. While each residency program has unique approaches to chronic disease management, it is important that residents become exposed to interdisciplinary experiences, interprofessional teamwork exposure, and their performance measures to have a successful learning experience.

Experiential Training on Chronic Disease Management

Many residency training have primary care clinics that operate with Patient Centered Medical Homes (PCMH). PCMH models often have team members to help care for patients with chronic diseases (1). Certain academic institutions have developed specialized chronic care clinics to provide residents experiential training in specific chronic disease management. Examples include but are not limited to the community-based HIV/AIDS Clinic at Montefiore Medical Center, the Grady Liver Clinic at Emory University (2), and the Multidisciplinary Resident Diabetes Clinic at the University of Florida (3). The curriculum for each specialized chronic care clinic is detailed in the respective reference. Universal to these clinics are its resident-driven, interdisciplinary, team-based exposure to managing patients with specific chronic diseases. Additionally, the Agency for Healthcare Research and Quality (AHRQ) developed a step-by-step toolkit to implementing chronic care models in the academic learning environment. Topics include “Engaging Leadership,” “Harnessing the Academic Culture,” “Implementing the Chronic Care Model”, and “Health Professions Education in Chronic Care” (4).

Chronic Disease Curricular Content

Faculty must supervise teaching residents using both evidence-based and patient-centered care as residents navigate the landscape of chronic disease management. Common conditions seen in the ambulatory setting should be included in the chronic disease curriculum which may occur through didactic lectures, self-administered web modules or active learning techniques. Each residency program will vary in their delivery of an educational curriculum. It may be a one, two or three year curriculum. Regardless of the strategy, important disease states to cover include type 2 diabetes management, COPD, asthma, chronic pain, chronic kidney disease, tobacco use, hyperlipidemia, hypertension, obesity and congestive heart failure. Certain programs may benefit from including other disease states such as addiction, homeless medicine and HIV care depending on the prevalence of a disease in the particular region. Existing web-based modules are available for programs to purchase and well-known products include the Yale Office-Based Medicine Education Curriculum and the Patient Education and Assessment Center (PEAC) (5-6).

Chronic Disease Panel Management

In addition to learning about chronic diseases in the ambulatory curriculum and through direct patient care, many residency programs are developing formal panel management curriculum. This is a pro-active approach to care and often involves outreach by a team member to schedule an office visit for patients who have gaps in their care or other methods of care through community outreach (7). Many residency programs have electronic health records that can generate patient lists for the residents and these lists can be used to help residents track their progress in managing their patients with chronic diseases. Advanced clinics may have chronic disease registries and panel managers to help residents with chronic disease management (8). Additionally, the Agency for Healthcare Research and Quality (AHRQ) and the Association of American Medical Colleges (AAMC) developed step-by-step guides to implementing panel management in clinical practice. The

AHRQ module on “Facilitating Practice Management” includes important topics on appropriate panel sizes, practice monitor empanelment, and processes/policies needed for sustainability (4, 9). The AAMC Step Forward module on panel management details six steps for implementation and provides 10 individual toolkits available for download. These include teaching exercises on stakeholder training in panel management, preventative care registry reports, and performance measures for panel management. The module even provides a virtual connection to a practice consultant to help guide implementation (10).

Patient Self-Management

Residents should be exposed to teaching and helping patients learn self-management to make their particular disease (11). This is best done through a team approach but can be monitored by the residents when patients are seen for office visits. For example, for patients with diabetes, the residents can assess how patients are doing with self-blood glucose monitoring (if applicable), adhering to their medication regimen and following an exercise regimen.

Resident Assessment

It is imperative that residents are evaluated and provided feedback on how they are performing chronic disease management both at the patient care level and as well as their mastery of the content. Both practice-based learning and improvement and systems-based practice milestones are relevant to assess the performance of a resident in the arena of chronic disease management (12). Programs may also survey the residents to understand the impact of the delivery of the curriculum, perform self or peer chart audits and also look at in-training exam scores.

Curricular Development

The curriculum should be dynamic and continuously evolve to meet the continuously evolving landscape of medicine as well as the Accreditation Council for Graduate Medical Education (ACGME) competencies (12). It is helpful to have a core group of faculty and residents to continuously analyze the curriculum to help to foster growth and meet needs of the individual program.

Conclusion

As the primary care workforce shifts to population-management, it is a crucial time for residency programs to have a robust and innovative chronic disease management curriculum for both excellent patient care and trainee education. It is quite possible that residents’ experience with a well-functioning clinic model could impact career choice, which can only help with the primary care shortage (13).

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Psychology and Psychiatry in Primary Care Curriculum

Stephanie Catanese, MD & Kelly McGarry, MD

Introduction

Delivering well-rounded primary care requires expertise in the psychiatric and psychosocial aspects of medicine. There is evidence that internal medicine, family medicine, and pediatrics programs dedicate some time to the development of the necessary skills but it is felt to be insufficient (1). In the General Internal Medicine Residency Program at Brown University, we have cultivated a longitudinal curriculum to address these important issues. In the course of the three-year curriculum, residents learn to work effectively with patients whose psychiatric and/or psychosocial issues (or concerns) constitute a major aspect of their illness and impact the rest of their medical care. The behavioral sciences faculty is multidisciplinary and includes an internist trained in general internal medicine/palliative care, a clinical psychologist, a psychiatrist, along with several internists in general medicine and faculty members from the Brown Medical School Centers for Preventive and Behavioral Medicine.

Breakdown

Our residents work within the traditional three-year model of monthly rotations. The primary care residents have a total of eight ambulatory block months over the three years. We provide a breakdown of the psychology and psychiatry curriculum which is delivered over the three-year curriculum. In the first year, residents are involved in a course on communication skills, covering such topics as doctor-patient communication, the role of family in primary care and cultural differences in the experience of illness. Concurrently, a general psychiatry lecture series completes the first-year curriculum. Home visits are an important part of the second-year experience. One resident chooses one of their own patients who present difficult diagnostic and/or management issues, most often complicated by psychiatric or psychosocial complexities. Program residents, working with our psychiatrist and clinical psychologist, serve as consultants and develop new management strategies for the patients' primary provider. The third year caters more to the interests of the resident with a focus on personal development, research endeavors, and their own curricular interests.

Curriculum Outline

PGY-1

A. Outpatient Communication Skills: Common Psychiatric Issues and Psychosocial Considerations in Primary Care

- Integrated Primary Care
- Managing Your Practice in the Resident Clinic
- Motivational Interviewing
- Family Dynamics in Primary Care
- How to Conduct a Family Meeting
- Taking a Sexual History
- Personality Styles and Disorders
- Borderline Personality and Dialectical Behavior Therapy
- Overview of the Community Mental Health System in Rhode Island
- Introduction to Refugee Health-Psychosocial Factors
- Difficult Physician-Patient Interactions
- Intimate Partner Violence
- International Sex and Gender Based Violence

- Trauma and PTSD in Primary Care
- Somatization in Primary Care-Overview and patient interviews
- Introduction to Narrative Medicine
- Patient Interviews
- Home Visits - Providence Housing Authority

B. Psychiatry Seminars

- Depressive Disorder
- Anxiety Disorders
- Delirium
- Dementia
- Psychosis
- Bipolar Disorder
- Special Topics
- Capacity and Informed Consent

PGY- 2

1. Topics in Behavioral Medicine and Self- Care

- Meditation and Mindfulness
- Cognitive Behavior Therapy and Self Care
- Introduction to Behavioral Medicine
- Schools of Psychotherapy
- Neuropsychological Assessment
- Sleep Disorders
- Neuropsychological Impact of Caregiving
- Caregiver Stress
- Smoking Cessation
- Obesity Treatment and Prevention
- Headache Management
- Patient Home Visits
- Community Visits
 - Dorcas-International Institute- a local organization dedicated to helping resettled refugees
 - Department of Health- Medical Director's Office- learning about advocacy and current issues nationally as well as at the state level
 - Community Mental Health Center
 - Adult Correctional Institute

Partnerships

Our program has been mainly led by a psychologist and psychiatrist who are invested in improving the delivery of primary care. It is of utmost importance to find educators who can provide applicable, practical knowledge on these important topics. Partnering with health care providers who are expert communicators is essential. This can include faculty from your psychiatry department, palliative care department, addiction medicine team, clinical social work, psychology department members, etc. It is helpful to have established connections with local institutions such as refugee organizations, homeless shelters, department of health office, etc.

Considerations

Time, financial considerations, and institutional expertise are factors to consider when developing this curriculum. Our program has three dedicated faculty members who each contribute 0.1 to 0.15 FTE to the

curriculum, demonstrating its importance and the value we place on the development of these skills. Our faculty members receive a stipend provided by the hospital. Program directors could assign a stipend from departmental or divisional administration, supervision, and teaching money, if that is negotiable. We could not have three faculty members give this percent effort if we could not find adequate remuneration for their services. For the faculty members who participate on an as needed basis, their contributions are part of their overall teaching commitment to the residents. The time allotment is usually a single two to three hour session per year. As noted, faculty interest and expertise in these areas is required and may be hard for smaller programs to develop, although for some faculty at our own program often the interest preceded the expertise. If faculty are interested, expertise can be cultivated along the way.

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Urgent Care Curriculum for Primary Care Providers

Lindsey E. Fish, MD

Introduction

Urgent care medicine is an expanding clinical field of medicine and the common conditions seen in urgent care settings are applicable to many medical specialties, including primary care internal medicine. Many clinical organizations as well as national credentialing organizations continue to push for increased same day appointments in primary care clinics where physicians need to be able to evaluate and treat acute care conditions. Urgent care clinics provide significantly more acute care exposure to trainees than just primary care clinics alone (1). Additionally, with the growth of free standing urgent care clinics as well as hospital affiliated urgent care clinics, many primary care providers are working split positions in both primary care and urgent care. The utilization of urgent care settings provide learners with broad exposure to undifferentiated patients, of varying ages and acuity, and teaching from generalists and specialty consultants (2) which may be difficult to obtain elsewhere in training due to time and resource limitations.

Objective of the Urgent Care Curriculum

The objective is provide a comprehensive urgent care learning experience in which internal medicine residents gain proficiency in urgent/acute care knowledge and skills, that cannot be obtained elsewhere in residency, and that would be applicable to career paths in primary care, urgent care and hospital based medical practice settings.

Urgent Care Curricular Topics

There is a wide variety of topics which could be included in an urgent care curriculum. These include but are not limited to headache, dizziness, syncope, anxiety, depression, ear pain, hearing loss, epistaxis, chest pain, palpitations, cough, upper/lower respiratory tract infections, abdominal pain, vomiting, dental complaints, skin findings/rashes, eye complaints, first trimester pregnancy pain and bleeding, vaginitis, orthopedic injuries and sexually transmitted diseases (2). Additionally, the urgent care clinic is a good location to learn several common clinic procedures. Possible procedures include incision and drainage, laceration repair, joint injections, toenail removal, IUD removal and bedside ultrasound. Should your internal medicine residency program partner with medicine-pediatrics or family medicine residencies, pediatric urgent care topics could also be included in the curriculum although these would not apply to internal medicine residents. These include pediatric chest pain, pediatric respiratory illnesses, pediatric foreign body in orifice and pediatric fever. While some may believe that urgent care is the same as outpatient internal medicine, many urgent care conditions are subspecialty focused and traditional outpatient internal medicine curricula have gaps in and/or under-address these topics.

Clinic Locations

The most common academic urgent care clinic setting is a hospital associated urgent care clinic. This may be stand alone, or situated in conjunction with an emergency department or primary care clinic. Some may already be in locations with regular resident learners, however, some may be an untapped clinic location. Free standing urgent care clinics may also be opportunities for learning in conjunction with community clinical instructors who have an interest in teaching. Urgent care clinics are not standardized and therefore, there are many factors that should be considered if adding an urgent care clinic location as a teaching site. Urgent care clinics can range from basic level urgent care which may only have one to three rooms and have limited point of care testing to advanced level urgent care which may have six to 10 beds and offer full STAT laboratory testing, x-ray, ultrasound, EKG, fluids/IV medication administration (3). Each urgent care clinic will operate under a different financial plan (i.e. you must be insured and pay a copay immediately to be seen) as well as

various regulatory issues (i.e. some may comply with EMTALA federal regulations). As such, gaining an understanding of the urgent care clinics resources and policies/procedures will be necessary to determine if it will be a positive educational opportunity for residents. Additionally, it is allowed for internal medicine residents to be supervised by non-internal medicine physicians in non-continuity ambulatory clinics. As such, in the urgent care clinic, an internal medicine resident may be supervised by internal medicine, medicine/pediatrics, family medicine or emergency medicine physicians.

Teaching Methods

Various teaching methods can be employed depending on the urgent care setting and rotation design. If residents are working at one clinic and the same shift, onsite didactic sessions or brief lectures can be utilized to educate on the specific topics of the curriculum. If residents start on various days, work various clinic locations and/or shifts, this approach may not function. One solution at a large urban multisite internal medicine residency program has been to create and utilize a self-directed urgent care curriculum in which the resident takes the initiative to learn the topics through direct patient care, article review and/or online resources. The University of Colorado School of Medicine curriculum includes eight topics to be completed during the four week elective, with a target of two topics per week. The topics include dental complaints, skin findings/rashes, eye complaints, first trimester pregnancy bleeding and pain, vaginitis, abdominal pain, incision and drainage procedure and laceration repair procedure. These topics were selected as common things seen in the primary care setting which are not always addressed in the standard internal medicine curriculum and exposure in standard clinical settings may be difficult. Each topic contains objectives focused on exam techniques, findings and differential diagnoses; a case report page to document patient cases when they are seen in clinic; a link to an established online module with an overview of the topic; and a clinical review article which is an overview of the topic. Residents are expected to submit the completed curriculum at the end of the elective for administrators to track and review. This self-directed method allows for the complete curriculum to be administered to all learners despite them not being in the same clinic location at the same time.

Orientation

Effective orientation to the urgent care clinic is extremely important for the success of the resident in this setting. Seeing the completely undifferentiated patient is often a new experience for the internal medicine resident. Additionally, learning to focus the encounter on the urgent complaint/issue may be a challenge for the primary care resident who is used to addressing multiple chronic and acute issues in a visit. As such, a discussion about the approach to a patient in this setting is important. Clinical operations and resources need a complete review for the resident as well, so they do not do something that is not compliant to the policies/regulations of the clinic and/or offer a test/study/referral that is not available in the clinic.

Conclusion

The urgent care clinic is an excellent learning opportunity for internal medicine residents which will help them gain significant exposure to acute and many subspecialty conditions. Utilizing this clinical resource can be an excellent addition to a primary care internal medicine residency training program.

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Contraceptive Counseling Curriculum for the Internist

Heather Viola, DO & Tamara Goldberg, MD

Introduction

Primary care physicians (PCPs) are in a unique position to offer contraceptive counseling services and potentially reduce unplanned pregnancies since most women receive preventive care from non-gynecological providers (1-2). Yet fewer than 50% of reproductive-aged women report having received contraceptive counseling from their primary medical provider (3-5). Barriers continue to exist at the provider level, often due to perceived lack of knowledge (6). Studies over the last three decades have consistently shown that contraceptive training for PCPs is deficient and opportunities for practicing physicians to obtain continuing medical education regarding advances in contraception are also limited (7-10). Insufficiency of knowledge and training often leads to omission of counseling in the primary care setting and increased referrals to women's health specialists. The lack of formalized family planning curricula stands in contradiction to the clinical priority for internal medicine physicians to provide such services, particularly those entering primary care who are expected to provide preventive and family planning services for reproductive aged women throughout their careers.

Curriculum Structure Overview

We offer a multimodal formal curriculum for internal medicine residents to improve knowledge, skills, and comfort with contraceptive counseling with the aim of bridging the gap between need and delivery of family planning services for reproductive-aged women. Each of the phases of our suggested curriculum can be used independently, or if time and schedule permits, incorporated longitudinally to optimize the retention of content.

Phase 1

In phase one, residents are introduced to contraceptive options as well as effective communication strategies to discuss these with patients. It is comprised of both an online module followed by a classroom-based didactic session with faculty utilizing case scenarios.

Supplementary material:

- The online module utilized can be found on fpntc.org (11)
- Appendix A: Birth Control Method Options Chart
- Appendix B- US Medical Eligibility Criteria
- Appendix C: Classroom PowerPoint Presentation

Phase 2

In phase two, residents observe the application of their knowledge of contraceptive counselling to patients through simulated encounters as well as observing faculty in a gynecology family planning clinic.

Supplementary material:

- Appendix D: "Approach to the Encounter" guide given to the residents prior to the sim lab to help prepare them for the session.
- Appendix E: Sample Case, Contraceptive Counselling
- Appendix F: Teaching Case Scenarios with Standardized Patient Script.
- Appendix G: Case Scenarios with Explanations
- Appendix H: Performance Checklist

Phase 3

In phase three, residents practice contraceptive counseling skills with their own clinic patients under direct observation of faculty.

Supplementary material:

- Appendix H: Performance Checklist

Curricular Content Detail

Phase 1: Online Module and Classroom-Based Didactics

Trainees must first familiarize themselves with contraceptive options available including advantages, risks, and administration. The first phase of our curriculum consists of completion of an online module¹¹ as well as a 1.5-hour classroom-based didactic session. The module addresses core knowledge of different contraceptive options as well as strategies for patient-centered communication when providing appropriate family planning and contraception counseling. We recommend residents be given protected time to complete the module and provided with appropriate supplemental material (**Appendix A and B**). The classroom-based session should focus on discussion of different contraceptive options and the advantages, disadvantages, side effects, and risk of pregnancy of each. We recommend incorporation of case scenarios with interactive group discussion during this session (**Appendix C**).

Phase 2: Physician Modeling and Simulation Lab Activity

After completing a content-based module and classroom session, it is ideal to have residents both observe a skilled practitioner delivering contraceptive counseling (role-modeling) as well as to apply their knowledge within the safe environment of standardized patient encounters (skills-based application). Given our existing schedule, we introduced Phase 2 a few months after Phase 1 during a primary care elective block. At our institution, activities during this phase included a dedicated session at a gynecology family planning clinic to observe how an expert in the field approaches contraception counseling as well as participation in a standardized patient counseling session in our simulation lab. While our institution has a formal simulation lab, this is not required for standardized role-play and a classroom setting can be used alternatively.

- During the simulation session, a faculty member (or chief resident) acts as the standardized patient in the case scenarios. The objective is to have the learner counsel the patient on appropriate contraceptive options considering both their medical comorbidities and preferred method.
- We recommend that prior to the simulation training, learners review the “Approach to the Encounter” guide to help prepare them for the session in advance (**Appendix D**).
- Teaching cases were developed with specific instructions for the learners, as well as for the standardized patient. (**Appendix E and F**).
- Residents are encouraged to use **Appendix G** to support their encounter with the patient.
- While each resident participates in a single fifteen-minute patient encounter, the other learners observe the encounter to help foster a meaningful discussion with constructive feedback during debrief.
- A second faculty member should watch the encounter and utilize a performance checklist (**Appendix H**) to assess both knowledge of different contraceptive options as well as the learner’s ability to effectively counsel on these options.
- Faculty conduct a debriefing session with all the residents and provide feedback on knowledge and communication skills.

Phase 3: Applying Skills to a Clinic Patient Encounter- Direct Observation

The final phase of the curriculum is to have the learners apply their skills to a real-time patient in clinic with direct faculty observation. Learners should be given direct feedback using the same communication skills checklist that was used in the simulation setting debrief (**Appendix H**).

Resident Assessment

A useful method to evaluate the curriculum is pre- and post-curriculum surveys assessing learners' knowledge and comfort level with the topic. In addition to the surveys, direct observation of individual skill performance is assessed during both the simulated patient scenarios and real-life clinic-based encounters. This allows the facilitator to provide specific, direct, formative feedback to each learner. Use of a performance checklist allowed for a high degree of precision and objectivity in data collection.

Conclusion
















In short, this curriculum addresses the gap in contraceptive counselling training for primary care trainees. Our multi-phase contraceptive counseling curriculum improved trainee confidence, knowledge, and skills in delivering effective family planning to patients and can serve as a useful framework for internal medicine programs to incorporate such content into their larger curriculum. Improved PCP knowledge and comfort with contraceptive counseling may minimize fragmentation of women's health care and enhance women's overall primary and preventive health.

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Appendix A: Birth Control Method Options

Birth Control Method Options

	Most Effective				Moderately Effective					Least Effective					
	Female Sterilization	Male Sterilization	IUD	Implant	Injectables	Pill	Patch	Ring	Diaphragm	Male Condom	Female Condom	Withdrawal	Sponge	Fertility Awareness Based Methods	Spermicides
															
Risk of pregnancy*	.5 out of 100	.15 out of 100	LNG: 2 out of 100 CopperT: .8 out of 100	.05 out of 100	4 out of 100	8 out of 100	9 out of 100	12 out of 100	13 out of 100	21 out of 100	20 out of 100	12-24 out of 100	24 out of 100	28 out of 100	
How the method is used	Surgical procedure		Placement inside uterus	Placement into upper arm	Shot in arm, hip or under the skin	Take a pill	Put a patch on skin	Put a ring in vagina	Use with spermicide and put in vagina	Put over penis	Put inside vagina	Pull penis out of the vagina before ejaculation	Put inside vagina	Monitor fertility signs. Abstain or use condoms on fertile days.	Put inside vagina
How often the method is used	Permanent		Lasts up to 3-12 years	Lasts up to 3 years	Every 3 months	Every day at the same time	Each week	Each month	Every time you have sex					Daily	Every time you have sex
Menstrual side effects	None		LNG: Spotting, lighter or no periods CopperT: Heavier periods	Spotting, lighter or no periods	Spotting, lighter or no periods	Can cause spotting for the first few months. Periods may become lighter.			None						
Other possible side effects to discuss	Pain, bleeding, infection		Some pain with placement		May cause appetite increase/weight gain	May have nausea and breast tenderness for the first few months.			Allergic reaction, irritation			None	Allergic reaction, irritation	None	Allergic reaction, irritation
Other considerations	Provides permanent protection against an unintended pregnancy.		LNG: No estrogen. May reduce cramps. CopperT: No hormones. May cause more cramps.	No estrogen	No estrogen. May reduce menstrual cramps.	Some clients may report improvement in acne. May reduce menstrual cramps and anemia. Lowers risk of ovarian and uterine cancer.			No hormones	No hormones. No prescription necessary.		No hormones. Nothing to buy.	No hormones. No prescription necessary.	No hormones. Can increase awareness and understanding of a woman's fertility signs.	No hormones. No prescription necessary.
Counsel all clients about the use of condoms to reduce the risk of STDs, including HIV infection.															

*The number of women out of every 100 who have an unintended pregnancy within the first year of typical use of each method.
Other Methods of Birth Control (1) Lactational Amenorrhea Method (LAM) is a highly effective, temporary method of contraception and (2) Emergency Contraception: emergency contraceptive pills or a copper IUD after unprotected intercourse substantially reduces risk of pregnancy. Reference for effectiveness rates: Trussell J. Contraceptive failure in the United States. *Contraception* 2011; 83: 397-404. Sundaram A. Contraceptive failure in the United States. *Perspect Sex Reprod Health* 2017;49:7-16. Other references available on www.fpnrc.org.



December 2017

Appendix B. US Medical Eligibility for Contraceptive Use

Summary Chart of U.S. Medical Eligibility Criteria for Contraceptive Use



Condition	Sub-Condition	Cu-IUD	LNG-IUD	Implant	DMPA	POP	CHC
Age		Menarche to <20 yrs: 2	Menarche to <20 yrs: 2	Menarche to <18 yrs: 1	Menarche to <18 yrs: 2	Menarche to <18 yrs: 1	Menarche to <40 yrs: 1
Anatomical abnormalities	a) Distorted uterine cavity	4	4				
	b) Other abnormalities	2	2				
Anemias	a) Thalassemia	2	1	1	1	1	1
	b) Sickle cell disease ¹	2	1	1	1	1	2
	c) Iron-deficiency anemia	2	1	1	1	1	1
Benign ovarian tumors (including cysts)		1	1	1	1	1	1
Breast disease	a) Undiagnosed mass	1	2	2*	2*	2*	2*
	b) Benign breast disease	1	1	1	1	1	1
	c) Family history of cancer	1	1	1	1	1	1
	d) Breast cancer ¹						
	i) Current	1	4	4	4	4	4
	ii) Past and no evidence of current disease for 5 years	1	3	3	3	3	3
Breastfeeding	a) <21 days postpartum			2*	2*	2*	4*
	b) 21 to <30 days postpartum						
	i) With other risk factors for VTE			2*	2*	2*	3*
	ii) Without other risk factors for VTE			2*	2*	2*	3*
	c) 30-42 days postpartum			1*	1*	1*	3*
	i) With other risk factors for VTE			1*	1*	1*	2*
	ii) Without other risk factors for VTE			1*	1*	1*	2*
	d) >42 days postpartum			1*	1*	1*	2*
Cervical cancer	Awaiting treatment	4	2	4	2	2	2
Cervical ectropion		1	1	1	1	1	1
Cervical intraepithelial neoplasia		1	2	2	2	1	2
Cirrhosis	a) Mild (compensated)	1	1	1	1	1	1
	b) Severe ¹ (decompensated)	1	3	3	3	3	4
Cystic fibrosis ¹		1*	1*	1*	2*	1*	1*
Deep venous thrombosis (DVT)/Pulmonary embolism (PE)	a) History of DVT/PE, not receiving anticoagulant therapy	1	2	2	2	2	4
	i) Higher risk for recurrent DVT/PE	1	2	2	2	2	3
	ii) Lower risk for recurrent DVT/PE	2	2	2	2	2	4
	b) Acute DVT/PE	2	2	2	2	2	4
	c) DVT/PE and established anticoagulant therapy for at least 3 months	2	2	2	2	2	4*
	i) Higher risk for recurrent DVT/PE	2	2	2	2	2	3*
	ii) Lower risk for recurrent DVT/PE	2	2	2	2	2	3*
	d) Family history (first-degree relatives)	1	1	1	1	1	2
	e) Major surgery	1	2	2	2	2	4
	i) With prolonged immobilization	1	1	1	1	1	2
	ii) Without prolonged immobilization	1	1	1	1	1	1
	f) Minor surgery without immobilization	1	1	1	1	1	1
Depressive disorders		1*	1*	1*	1*	1*	1*

Key:	1. No restriction (method can be used)	3. Theoretical or proven risks usually outweigh the advantages
	2. Advantages generally outweigh theoretical or proven risks	4. Unacceptable health risk (method not to be used)

Condition	Sub-Condition	Cu-IUD	LNG-IUD	Implant	DMPA	POP	CHC
Diabetes	a) History of gestational disease	1	1	1	1	1	1
	b) Nonvascular disease						
	i) Non-insulin dependent	1	2	2	2	2	2
	ii) Insulin dependent	1	2	2	2	2	2
	c) Nephropathy/retinopathy/neuropathy ¹	1	2	2	3	2	3/4*
	d) Other vascular disease or diabetes of >20 years duration ¹	1	2	2	3	2	3/4*
Dysmenorrhea	Severe	2	1	1	1	1	1
Endometrial cancer ¹		4	2	4	2	1	1
Endometrial hyperplasia		1	1	1	1	1	1
Endometriosis		2	1	1	1	1	1
Epilepsy ²	(see also Drug Interactions)	1	1	1*	1*	1*	1*
Gallbladder disease	a) Symptomatic	1	2	2	2	2	2
	i) Treated by cholecystectomy	1	2	2	2	2	2
	ii) Medically treated	1	2	2	2	2	3
	iii) Current	1	2	2	2	2	3
	iv) Asymptomatic	1	2	2	2	2	2
Gestational trophoblastic disease	a) Suspected GTD (immediate postcoagulation)						
	i) Uterine size first trimester	1*	1*	1*	1*	1*	1*
	ii) Uterine size second trimester	2*	2*	1*	1*	1*	1*
	b) Confirmed GTD						
	i) Undetectable/non-pregnant hCG levels	1*	1*	1*	1*	1*	1*
	ii) Decreasing hCG levels	2*	1*	2*	1*	1*	1*
	iii) Persistently elevated hCG levels or malignant disease, with no evidence or suspicion of intrauterine disease	2*	1*	2*	1*	1*	1*
	iv) Persistently elevated hCG levels or malignant disease, with evidence or suspicion of intrauterine disease	4*	2*	4*	2*	1*	1*
Headaches	a) Nonmigraine (mild or severe)	1	1	1	1	1	1*
	b) Migraine						
	i) Without aura (includes menstrual migraine)	1	1	1	1	1	2*
	ii) With aura	1	1	1	1	1	4*
History of bariatric surgery ¹	a) Restrictive procedures	1	1	1	1	1	1
	b) Malabsorptive procedures	1	1	1	1	3	COCs: 3
History of cholestasis	a) Pregnancy related	1	1	1	1	1	2
	b) Past COC related	1	2	2	2	2	3
History of high blood pressure during pregnancy		1	1	1	1	1	1
History of Pelvic surgery		1	1	1	1	1	1
HIV	a) High risk for HIV	2	2	2	2	2*	1
	b) HIV infection				1*	1*	1*
	i) Clinically well receiving ARV therapy	1	1	1			
	ii) Not clinically well or not receiving ARV therapy ¹	2	1	2	1		

Abbreviations: = combination of contraceptive method; CHC=combined hormonal contraceptive; Cu-IUD=Copper Intrauterine Device; DMPA=depot medroxyprogesterone acetate; Efficacy of contraceptive method; LNG-IUD=Levonorgestrel-releasing intrauterine device; NA=not applicable; POP=progestin-only pill; P=patching; * Condition that poses a woman to increased risk as a result of pregnancy. *Note: see the complete guidance for a clarification to this classification: www.cdc.gov/research/ourresearch/condom/condomeligibilitycriteria.htm

Summary Chart of U.S. Medical Eligibility Criteria for Contraceptive Use



Condition	Sub-Condition	Cu-IUD	LNG-IUD	Implant	DMPA	POP	CHC
Hypertension	a) Adequately controlled hypertension	1*	1*	1*	2*	1*	3*
	b) Elevated blood pressure levels (properly taken measurements)						
	i) Systolic 140-159 or diastolic 90-99	1*	1*	1*	2*	1*	3*
	ii) Systolic ≥160 or diastolic ≥100 ¹	1*	2*	2*	3*	2*	4*
	c) Vascular disease	1*	2*	2*	3*	2*	4*
Inflammatory bowel disease (Ulcerative colitis, Crohn's disease)		1	1	1	2	2	2/3*
Ischemic heart disease ¹	Current and history of	1	2	3	3	3	4
Known thrombogenic mutations ¹		1*	2*	2*	2*	2*	4*
Liver tumors	a) Benign	1	2	2	2	2	2
	i) Focal nodular hyperplasia	1	3	3	3	3	4
	ii) Hepatocellular adenoma ²	1	3	3	3	3	4
	b) Malignant (hepatoma)	1	1	1	1	1	1
Malaria		1	1	1	1	1	1
Multiple risk factors for atherosclerotic cardiovascular disease	(e.g., older age, smoking, diabetes, hypertension, low HDL, high LDL, or high triglyceride levels)	1	2	2*	3*	2*	3/4*
Multiple sclerosis	a) With prolonged immobility	1	1	1	2	1	3
	b) Without prolonged immobility	1	1	1	2	1	1
Obesity	a) Body mass index (BMI) ≥30 kg/m ²	1	1	1	1	1	2
	b) Menarche to <18 years and BMI ≥30 kg/m ²	1	1	1	2	1	2
Ovarian cancer ¹		1	1	1	1	1	1
Parity	a) Nulliparous	2	2	1	1	1	1
	b) Parous	1	1	1	1	1	1
Past ectopic pregnancy		1	1	1	1	2	1
Pelvic inflammatory disease	a) Past	1	1	1	1	1	1
	i) With subsequent pregnancy	1	1	1	1	1	1
	ii) Without subsequent pregnancy	2	2	2	1	1	1
	b) Current	4	2*	4	2*	1	1
Peripartum cardiomyopathy ¹	a) Normal or mildly impaired cardiac function						
	i) <6 months	2	2	1	1	1	4
	ii) ≥6 months	2	2	1	1	1	3
	b) Moderately or severely impaired cardiac function	2	2	2	2	2	4
Postabortion	a) First trimester	1*	1*	1*	1*	1*	1*
	b) Second trimester	2*	2*	1*	1*	1*	1*
	c) Immediate postseptic abortion	4	4	1*	1*	1*	1*
Postpartum (nonbreastfeeding women)	a) <21 days			1	1	1	4
	b) 21 days to <42 days						
	i) With other risk factors for VTE			1	1	1	3*
	ii) Without other risk factors for VTE			1	1	1	2
	c) >42 days			1	1	1	1
Postpartum (in breastfeeding or non-breastfeeding women, including cesarean delivery)	a) <10 minutes after delivery of the placenta	1*	2*				
	i) Breastfeeding	1*	1*				
	ii) Nonbreastfeeding	1*	2*				
	b) 10 minutes after delivery of the placenta to <4 weeks	2*	2*				
	c) ≥4 weeks	1*	1*				
	d) Postpartum sepsis	4	4				

Condition	Sub-Condition	Cu-IUD	LNG-IUD	Implant	DMPA	POP	CHC
Pregnancy		4*	4*	NA*	NA*	NA*	NA*
Rheumatoid arthritis	a) On immunosuppressive therapy	1	2	1	2/3*	1	2
	b) Not on immunosuppressive therapy	1	1	1	2	1	2
Schistosomiasis	a) Uncomplicated	1	1	1	1	1	1
	b) Fibrosis of the liver ¹	1	1	1	1	1	1
Sexually transmitted diseases (STDs)	a) Current purulent cervicitis or chlamydial infection or gonococcal infection	4	2*	4	2*	1	1
	b) Vaginitis (including trichomonas vaginalis and bacterial vaginosis)	2	2	2	1	1	1
	c) Other factors relating to STDs	2*	2	2*	2	1	1
Smoking	a) Age <35	1	1	1	1	1	2
	b) Age ≥35, <15 cigarettes/day	1	1	1	1	1	3
	c) Age ≥35, ≥15 cigarettes/day	1	1	1	1	1	4
Solid organ transplantation ¹	a) Complicated	3	2	3	2	2	4
	b) Uncomplicated	2	2	2	2	2	2*
Stroke ¹	History of cerebrovascular accident	1	2	2	3	2	3
Superficial venous disorders	a) Varicose veins	1	1	1	1	1	1
	b) Superficial venous thrombosis (acute or history)	1	1	1	1	1	3*
Systemic lupus erythematosus ¹	a) Positive (or unknown) antiphospholipid antibodies	1*	1*	3*	3*	3*	4*
	b) Severe thrombocytopenia	3*	2*	2*	2*	3*	2*
	c) Immunosuppressive therapy	2*	1*	2*	2*	2*	2*
	d) None of the above	1*	1*	2*	2*	2*	2*
Thyroid disorders	Simple goiter/ hyperthyroid/hypothyroid	1	1	1	1	1	1
Tuberculosis	a) Nonpulmonary	1	1	1	1	1	1
	b) Pulmonary	4	3	4	3	1*	1*
Unexplained vaginal bleeding	(suspectious for serious condition) before evaluation	4*	2*	4*	2*	3*	2*
Uterine fibroids		2	2	1	1	1	1
Valvular heart disease	a) Uncomplicated	1	1	1	1	1	2
	b) Complicated ¹	1	1	1	1	1	4
Vaginal bleeding patterns	a) Irregular pattern without heavy bleeding	1	1	1	2	2	2
	b) Heavy or prolonged bleeding	2*	1*	2*	2*	2*	1*
Viral hepatitis	a) Acute or flare	1	1	1	1	1	3/4*
	b) Carrier/Chronic	1	1	1	1	1	1
Drug Interactions	Antiretroviral therapy (ART)	1/2*	1*	1/2*	1*	2*	2*
	All other ARTs are 1 or 2 for all methods.						
Anticonvulsant therapy	a) Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, carbamazepine)	1	1	1	1	1	3*
	b) Lamotrigine	1	1	1	1	1	3*
Antimicrobial therapy	a) Broad spectrum antibiotics	1	1	1	1	1	1
	b) Antifungals	1	1	1	1	1	1
	c) Antiparasitics	1	1	1	1	1	1
	d) Rifampin or rifabutin therapy	1	1	1	1	1	3*
SSRIs		1	1	1	1	1	1
St. John's wort		1	1	2	1	2	2


Updated in 2017. This summary sheet only contains a subset of the recommendations from the U.S. MEC. For complete guidance, see <http://www.cdc.gov/research/ourresearch/condom/condomeligibilitycriteria.htm>. Most contraceptive methods do not protect against sexually transmitted diseases (STDs). Consistent and correct use of the male latex condom reduces the risk of STDs and HIV.

CS260006-A

Appendix C. Contraceptive Counseling and Family Planning in Primary Care

Contraceptive Counseling & Family Planning in Primary Care

PCIM Didactics
Heather Viola, DO




1

Objectives

1. Describe advantages, disadvantages, risk of pregnancy, and SE's of different contraceptive methods.
2. Identify appropriate contraceptive method options based upon comorbidities and patient preferred methods.
3. Learn how to approach the family planning encounter.
4. Identify patient-centered communication skills.
5. Develop strategies for teaching patients about contraceptive methods (use "teach back").

2

Goals of Contraceptive Counseling



3

1) Discuss Reproductive Life Plan

For women who do not desire pregnancy:

- ▶ Clinician discusses options for pregnancy prevention and helps the woman select an appropriate choice based on her:
 - ▶ Health status
 - ▶ Personal values
 - ▶ Preferences

For women who do desire pregnancy:

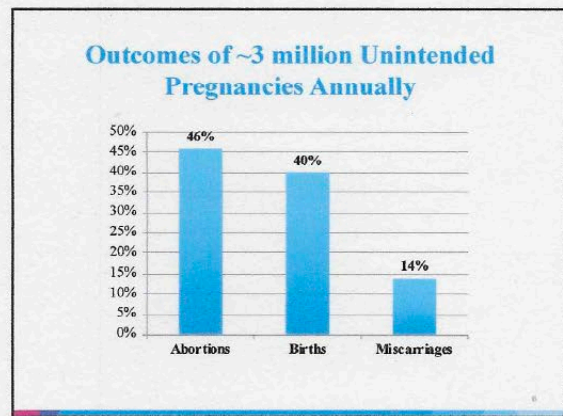
- ▶ Clinician provides the following:
 - ▶ Pre-conceptual counseling
 - ▶ Discusses folate supplements
 - ▶ Educates the woman on optimal lifestyle choices for pregnancy (smoking cessation, alcohol avoidance, weight management)
 - ▶ Ensures follow-up with an OBGYN

4

2) Reduce Unintended Pregnancy

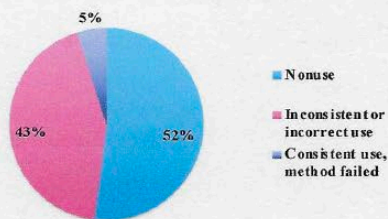
Nearly half of pregnancies in the U.S are unintended (in 2018, 45% of 6 million pregnancies)!

5



6

Most unintended pregnancies occur when women fail to use contraceptives or use their method inconsistently.



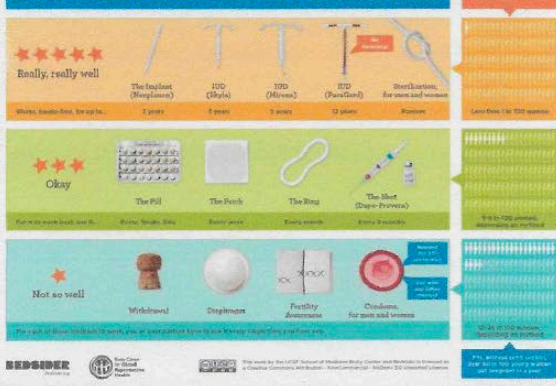
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Birth Control Methods



8

HOW WELL DOES BIRTH CONTROL WORK?



9

Most Effective Options- Least User Dependent

Method	How the method is used and how often	Menstrual Side Effects + other side effects	Other considerations/Contraindications
Female/Male Sterilization	Surgical procedure, PERMANENT	<ul style="list-style-type: none"> No menstrual SE's Pain, bleeding, infection after surgery 	<ul style="list-style-type: none"> Provides permanent protection against an unintended pregnancy Vasectomy: can take up to 3 months for remaining sperm to be used up
IUD (ParaGard, Mirena, Skyla, Liletta, and Kyleena)	Placement inside uterus, lasts up to 3-12 years depending on which IUD used Copper: toxic to sperm and causes intra-uterine inflammation LNG: stops ovulation, increases cervical mucus, and thins endometrium	<ul style="list-style-type: none"> LNG: spotting, lighter or no periods, may reduce cramping Copper: heavier periods, may cause more cramps Some pain with placement 	<ul style="list-style-type: none"> Contraind: pelvic infection, PID < 3 months ago, gonorrhea, breast cancer (OK to use copper IUD), copper allergy STI testing before inserting if high risk
Progestosterone Implant (Nexplanon)	Placement into upper arm subdermally, lasts up to 3 years Same mechanism as LNG IUD	<ul style="list-style-type: none"> Spotting, lighter, or no periods Some pain with placement May have hormonal SE's 	<ul style="list-style-type: none"> No estrogen Contraind: liver/gonadal/breast cancer, liver disease, on enzyme inducers

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Moderately Effective Options

Method	How the method is used and how often	Menstrual Side Effects + other side effects	Other considerations/Contraindications
Progestosterone Injection (Depo-Provera)	Shot in arm, hip or under the skin every 3 months Same mechanism as LNG IUD	<ul style="list-style-type: none"> Spotting, lighter, or no periods May cause appetite increase/weight gain + hormonal SE's BMD loss Avoid in women who desire pregnancy in the near future as it can be associated with a delayed return to fertility 	<ul style="list-style-type: none"> No estrogen. May reduce menstrual cramps. Contraind: liver/gonadal/breast cancer, liver disease, on enzyme inducers Must remember to RTC q3months
Progestosterone only pill	Take a pill daily at same time (no breaks) Increases cervical mucus and thins endometrium	<ul style="list-style-type: none"> Can cause spotting for first few months, then becomes lighter Hormonal SE's 	<ul style="list-style-type: none"> Must remember to take at on exact time Good to use while breastfeeding Contraind: breast cancer, liver disease, forgetfulness

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Depo-Provera: Caution!

- Black box warning 2004
 - Depo-Provera use >2 years associated with BMD loss
- No evidence of increase in future fracture or osteoporosis risk
- BMD loss temporary, recovers after discontinuation
- Teen pregnancy causes more bone loss than teen Depo-Provera use
 - Other lifestyle factors have greater impact on BMD: exercise, diet, weight
- Summary: avoid using Depo-Provera for more than 2 years!

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Moderately Effective Options			
Method	How the method is used and how often	Menstrual Side Effects + other side effects	Other considerations/Contraindications
Combined OCP's (June!, Loestrin, ect.)	Take a pill everyday at the same time (3 weeks on, 1 week pill-free/placebo) Stops ovulation, increases cervical mucus, thins endometrium (same for patch and ring)	<ul style="list-style-type: none"> Can cause spotting for the first few months, lighter periods Hormonal SE's Blood clots Increased risk of breast/cervical cancer Decreases risk of ovarian/endometrial cancer Reduces menstrual cramps 	<ul style="list-style-type: none"> Absolute contraindication: smoker >35 years, breastfeeding, hypertensive, current or past VTE Hx, migraine with aura, CVD, current breast cancer, liver cirrhosis/cancer Relative contraindication: adequately controlled htn, migraine >35, BMI >35, enzyme inducing meds
Combined patch (Ortho Evra)	Change patch weekly (one patch free week per month)	Same SE's as OCP's plus local irritation from patch	Same as above
Combined vaginal ring (NuvaRing)	Leave vaginal ring in for 3 weeks then one ring-free week	Same SE's as OCP's plus pain from the ring during intercourse (can be removed if uncomfortable but only for a maximum of 3 hours)	Same as above

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Least Effective Options- Most User Dependent			
Method	How the method is used and how often	Menstrual Side Effects + other side effects	Other considerations/Contraindications
Male/Female Condoms	Physical barrier, use every time you have sex	<ul style="list-style-type: none"> No menstrual SE's Allergic reaction, irritation 	<ul style="list-style-type: none"> Only method which stops STI transmission No hormones, no prescription necessary
Diaphragm	Diaphragm fitted by a trained provider, used with spermicide an inserted into vagina and over cervix to keep sperm from entering uterus- every time you have sex	As above	No hormones
Fertility Awareness Based Methods	Monitor fertility signs. Abstain or use condoms on fertile days (middle of the cycle during ovulation) Standard Days Method: if female has a cycle that is between 26 and 32 days long can use this: counting from first day of period, days 8-19 her cycle are fertile days	No side effects	<ul style="list-style-type: none"> Can increase awareness and understanding of a woman's fertility signs Often used by couples whose religious beliefs oppose hormonal BC options

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OOPS! EMERGENCY CONTRACEPTION: BIRTH CONTROL THAT WORKS AFTER SEX

Types of emergency contraception	How well does it work?	How soon do I have to use it?	How do I use it?	Where can I get it?
ParaGuard IUD	Almost 100% effective	Within 5 days	It's inserted in the uterus by a doctor or nurse	Some doctors' offices or at a clinic
Ella	Take the pill as soon as you get it	ASAP	Take the pill as soon as you get it	At a pharmacy, no prescription needed
Plan B One-Step or a generic	Take the pill as soon as you get it	ASAP	Take the pill as soon as you get it	At a pharmacy, no prescription needed

For more information, check out noe-24.org

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Approach to the Encounter

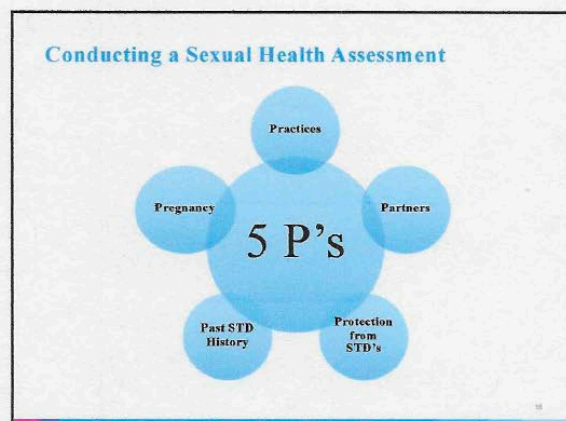
For more information, check out noe-24.org

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First take a Thorough Medical History!

- 5 P's crucial to ask during the encounter!
- Past Medical History including:
 - Thrombophilia
 - Uncontrolled HTN
 - Migraine with aura
 - Cancers
 - MVCVA
- Medications (especially enzyme inducers)
- Allergies
- Social History including:
 - Smoking
- Family History including:
 - Cancer
 - VTE history

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Brief Outline of Encounter

- ▶ Medical History Taking
- ▶ Let the patient lead the consultation!
 - Ask what they are hoping to get out of the encounter and what they know so far
 - Ask questions that will help you determine which is the most appropriate method for the patient (method preferences, desire for future pregnancy, etc.)
 - Recognize and try to avoid your own biases
- ▶ Describe an appropriate method in detail
 - More likely to be adherent if able to use their method of choice
- ▶ Briefly discuss alternatives
 - Provide simplified additional information to read at home – Bedsider.org
- ▶ Ending
 - Let patient decide which option is right for them
 - Educate patient about EC use if method is used incorrectly
 - Summarize and use teach-back
 - Discuss flu visits

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Seven Strategies for Effective Patient Education



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Prescribing Contraception



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When to Start- "Quick Start"

Contraceptive Method	When to start, if provider is reasonably certain woman is not pregnant	Back-up needed
LNG IUD	Anytime	If >7 days since start of cycle, use back-up method or abstain for 7 days
Copper IUD	Anytime	Not needed
Implant	Anytime	If >5 days since start of cycle, use back-up or abstain for 7 days
Injectable	Anytime	If >7 days since start of cycle, use back-up method or abstain for 7 days
CHC (pill, patch, ring)	Anytime	If >5 days since start of cycle, use back-up or abstain for 7 days
Progestin-Only Pills	Anytime	If >5 days since start of cycle, use back-up or abstain for 2 days

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Hormonal Contraception: What is needed before prescribing OCP's?

Medical history
REQUIRED



Pap smear
Pelvic/breast exam
STI testing
Hemoglobin
NOT REQUIRED

Blood Pressure
REQUIRED

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What is needed before Prescribing? Examinations and Testing

Examination	LNG and Cu IUD	Implant	Injectable	CHC	POP	Coinject	Diaphragm or cervical cap	Vaginal ring
Blood pressure	€	€	€	€	€	€	€	€
Weight (BMI)	—	—	—	—	—	—	—	—
Clinical breast examination	€	€	€	€	€	€	€	€
Biomedical examination and cervical inspection	—	€	€	€	€	€	—	—
Laboratory test								
Glucose	€	€	€	€	€	€	€	€
Lipids	€	€	€	€	€	€	€	€
Liver enzymes	€	€	€	€	€	€	€	€
Hemoglobin	€	€	€	€	€	€	€	€
Thrombotic risk factors	€	€	€	€	€	€	€	€
Cervical cytology (Pap smear)	€	€	€	€	€	€	€	€
STD screening with laboratory tests	—	€	€	€	€	€	€	€
HIV screening with laboratory tests	€	€	€	€	€	€	€	€

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Exclude Pregnancy

BOX 1. How To Be Reasonably Certain that a Woman Is Not Pregnant

A health-care provider can be reasonably certain that a woman is not pregnant if she has no symptoms or signs of pregnancy and meets any one of the following criteria:

- is ≤ 7 days after the start of normal menses
- has not had sexual intercourse since the start of last normal menses
- has been correctly and consistently using a reliable method of contraception
- is ≤ 7 days after spontaneous or induced abortion
- is within 4 weeks postpartum
- is fully or nearly fully breastfeeding (exclusively breastfeeding or the vast majority $\geq 85\%$) of feeds are breastfeeds),* amenorrheic, and < 6 months postpartum

*Source: Labbok M, Perez A, Valdez V, et al. The Lactational Amenorrhea Method (LAM): a postpartum introductory family planning method with policy and program implications. *Adv Contracept* 1994;10:93-109.

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Tips for Prescribing OCP's

- ▶ Discuss MC SE's (i.e bleeding), let the patient know that most SE's diminish by 3 months, give written info on SE's to watch out for
- ▶ Ensure correct method use
 - 21 pill packet will have 7 pill free days, 28 pill packet will have no pill free days
 - Choose time of day they can consistently take the pill, use phone alarm as reminder
- ▶ Improve access to refills to improve adherence
 - Write for a full year's supply (90 day supply with refills) even if patient needs a follow-up visit
 - Patient-centered practice = many refills on chronic meds
- ▶ Improve access to EC
 - Give a list of pharmacies that carry EC
 - Use advance prescriptions at every opportunity

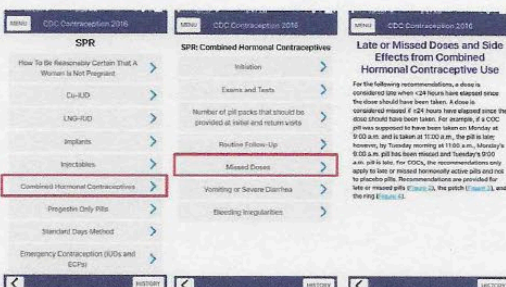
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What to do if missed pill?

- ▶ Combined OCP
 - MISSED PILL → take ASAP (even with next one), if next on time, it's fine, do not need additional protection
 - If miss two → take one pill immediately and use a condom for 7 days
 - Further management depends on week:
 - 1st week of packet: will need EC if had sex in pill-free interval or 1st week of packet
 - 2nd week: no action
 - 3rd week: omit the pill-free week
 - Summary: worse to miss pill in beginning or end of pack!
 - Specific instructions on pill packets
- ▶ Progesterone only pill
 - MISSED PILL → take ASAP (even with next one), if > 3 hours later, use condom for 2 days, and consider EC if had sex in the 2-3 days before missed pill or had sex since the missed pill
 - Unlike combined OCP's, these only work for 24 hours, so there is no effect once this time period has passed
- ▶ Bottom line: missing combined OCP is more forgiving than missing the mini pill

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Using the CDC's U.S SPR App



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Two MC Prescribed Combined OCP's

- ▶ Ortho-cyclen (generic: norgestimate-ethinyl estradiol) 0.25-35mg/mcg
 - Type Ortho-cyclen into ECW, one dose pops up
 - Take 1 tablet PO at the same time daily x 28 days
 - Dispense 3 packets (84 pills) x 4 refills
- ▶ Loestrin, Junel, Gildess (generic: Microgestin, norethindrone acetate-ethinyl estradiol)
 - Type in Microgestin into ecw, two doses will pop up
 - 1.5/30 or 1/20, usually start 1.5/30 however if patient has not tolerated BC well in the past or had many hormonal SE's may want to start with the lower hormones
 - Take 1 tablet PO at the same time daily x 28 days
 - Dispense 3 packets (84 pills) x 4 refills



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Follow-up

- ▶ Prescribe OCP's → review at 3 months → f/u 6months-1year
- ▶ Stress to RTC if SE's, problems, concerns, or change in reproductive plans
- ▶ At follow-up visits:
 - Ask about SE's, correct method use, changes in health status including new meds and smoking status
 - Check BP and weight
 - Consider if contraception is still required and if method should be changed
 - Check whether pelvic exam/cervical cancer screening is due (pap smear)
 - Opportunity for patient questions
- ▶ Do NOT link refills to provider f/u, always give 1 year to improve adherence!

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Interactive Case Scenarios

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Case 1

A 36 year old F with PMHx of obesity, HTN, and DM2 presents to clinic requesting contraception. Her BP is consistently >140/90 on multiple office visits and ambulatory monitoring. She also experiences menorrhagia and dysmenorrhea due to fibroids. Current 1PPD smoker.

- ▶ Based on comorbidities, what options are contraind?
- ▶ What are the best options for this patient?
- ▶ Which may help her dysmenorrhea/menorrhagia?

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CDC Summary Chart of U.S Medical Eligibility Criteria for Contraceptive Use

- ▶ [U.S Contraceptive Eligibility Criteria](#)
- ▶ Look up contraceptive contraindications based upon co-morbidities

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Case 2

A 27 year old F with no PMHx presents to your office for an annual physical. During your discussion she inquires about contraception, specifically about the "pill". She is also very nervous that she will need a pelvic exam today in order to start birth control.

- ▶ What will you tell her regarding what exams/tests need to be done prior to initiating OCP's?
 - ▶ When can she start the pill?
- ▶ How will you counsel her regarding OCP use?

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Summary

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Summary

- ▶ Know the contraindications to estrogen!
 - Helpful tools:
 - CDC Summary Chart of U.S Medical Eligibility Criteria
 - U.S SPR phone app
- ▶ When approaching the contraceptive counseling encounter:
 - Establish rapport, ask open ended questions, & actively listen
 - Assess patient needs, explore method preferences
 - Work interactively to make a plan
 - Provide information, address misconceptions
 - Confirm patient understanding with teach-backs!

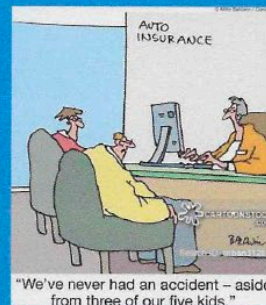
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Take Home Messages Be Proactive with Contraception!

- ▶ Ask about contraceptive needs at all types of visits for a reproductive-aged female!
- ▶ Use Quickstart. Most women can start on the day of the visit as long as the provider is reasonably certain that the woman is not pregnant.
- ▶ Few, IF ANY, exams or tests are needed before initiating contraception.
- ▶ DE-LINK pap smears from birth control prescriptions.
- ▶ ROUTINELY prescribe 1-year supply with 3 packs at a time.
- ▶ Emphasize high-efficacy methods, but honor women's choice whenever possible.
- ▶ Advise to RTC at any time to discuss SE's or method change.
- ▶ **YOU, as a PCP at your clinics, can prescribe OCP's, do not be afraid to!**

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Thank You!



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Appendix D. Approach to the Contraceptive Counseling Encounter

1. First ask a few questions:

“What brings you in today?”

“First I need to ask you a few questions about your health and relationships to decide which methods are most appropriate...”

- Age
- Relationship/sexual history (number of partners, STI hx)
- Menstrual/OBGYN history (dysmenorrhea/menorrhagia/cycle length/cycle regularity)
- Recent pregnancy/breastfeeding
- Previous contraception
- PMHx including thrombophilia, uncontrolled HTN, migraine with aura, cancer, CVA, MI
- Medications and allergies
- Social hx including smoking
- Family hx including breast/cervical cancer, VTE history

2. What They Like and What They Know

- Ask them what they are hoping to get out of the consultation and what they know so far (let the patient lead the consultation)
- Try to determine which type of method will be most appropriate for the patient:
 - “Do you have any preferences?” (personal, religious, etc.)
 - “What is your preferred delivery?”
 - “Would you tolerate injections?”
 - Ask about patient’s desires regarding future pregnancy

3. Describe a Method in More Detail

- Risk of pregnancy
- How it works/how it is used
- Treatment course/how often it is used
- Advantages vs. disadvantages
- Side effects and effects on menstrual cycles

4. Briefly Discuss Other Options

- Mention alternatives, say you will provide them with additional information on these options to read at home (i.e. pamphlets, printed educational material)

5. Ending

- Let them decide which option is right for them → if pill/SARC, prescribe yourself, if implant/IUD (depending on how comfortable you feel placing) → gyn referral
- Summarize discussion and confirm that patient has an understanding of the contraceptive method chosen and their plan for correct use (use teach-back).
- Advise that they can return again if they wish to discuss other options.
- End the encounter with a friendly close.

Appendix E. Sample Cases

CASE 1: THROMBOPHILIA Resident 1

A 36-year-old female with a body mass index of 31 kg/m² (obese) has a past medical history of protein S deficiency with active lower-extremity deep vein thrombosis, for which she is taking Coumadin. She experiences menorrhagia and dysmenorrhea due to intramural fibroids seen on transvaginal ultrasound. She desires contraception. How do you counsel her?

CASE 2: HYPERTENSION Resident 2

A 36-year-old female with PMHx of obesity, HTN and DM2 presents to clinic requesting contraception. Her blood pressure is consistently >140/90 mm Hg on multiple office visits and ambulatory monitoring. She also experiences menorrhagia and dysmenorrhea due to intramural fibroids. She desires contraception. How do you counsel her?

CASE 3: MIGRAINE WITH AURA Resident 3

A 36-year-old female with PMHx of obesity, GERD, and migraine presents to the clinic requesting contraception. Her migraines have not changed or worsened in the past few years, stable on sumatriptan PRN abortive therapy and prophylactic propranolol. Migraines are associated with a feeling of numbness that travels up her arm to her face prior to the onset of the migraine, lasting ~10minutes. She also experiences menorrhagia and dysmenorrhea due to intramural fibroids. She desires contraception. How do you counsel her?

Appendix F. Teaching Case Scenarios with Standardized Patient Script

CASE 1: THROMBOPHILIA Resident 1

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Case 1: Thrombophilia, Resident 1

Date: 2/14/19

Primary Case Author: Heather Viola

Secondary Case Author: Tamara Goldberg

Standardized Patient Educator: Heather Viola

Name of Case: Thrombophilia

Name of educational and or assessment activity: Contraception Counseling Encounter

Patient Name: Barbara

Chief Complaint: Heavy menses associated with painful cramping, desires contraception. Patient has a history of protein S deficiency with an active lower-extremity deep vein thrombosis, for which she is taking coumadin.

Most likely Diagnosis and Differential with rationale from history and/or physical exam:

Contraception initiation for a woman with contraindication to estrogen given known thrombophilia (on coumadin) and active smoker. Must avoid estrogen-containing contraceptives when counseling patient during encounter.

Domains:

- ☐ Communication and Interpersonal skills
- ☐ Medical History
- ☐ Shared Decision Making
- ☐ Patient Education

AAIM PRIMARY CARE TRACK TOOLKIT

☐ Clinical Reasoning

Type and level of learner: Resident learner

Case Objectives: please list specific objectives for each of the domains you have checked above:

1. Perform a thorough history, including menstrual, obstetric, gynecologic, contraceptive and sexual history.
2. Identify appropriate contraception options for a patient based on medical co-morbidities and patient preference.
3. Demonstrate effective patient-centered contraceptive counseling in the outpatient clinic setting.

SETTING: outpatient, in patient, ED, home, nursing home, rehab, group etc.	Outpatient
PATIENT PROFILE: Information about the “patient” that helps select an SP and helps the learner get an understanding of them as a person. SP will know more information about the patient than learner will ever ask but allows SP to portray a fully developed patient personality. If none of the items below are particulars for the case, please write “all may be used.”	
Age range	36
Religious/spiritual background	All may be used
Sex (e.g., male, female, intersex, transwoman, transman)	Female
Sexual Orientation (e.g., heterosexual, lesbian, gay, bisexual, pansexual, queer, asexual)	Heterosexual
Gender expression (e.g., man, woman, gender queer)	Woman
Race/ethnicity:	All may be used
Physical description (e.g., BMI, height range)	Obese (BMI 31)
Physical limitations	None
Patient appearance (e.g., disheveled, hospital gown, business casual, casual)	Pleasant, well-groomed
Moulage + location (e.g., none, bruises, scars, body piercing, tattoos)	None
Affect (e.g., pleasant, cooperative)	Pleasant
Family group (e.g., who is family, who they live with)	Lives with husband and two sons, mother has protein S deficiency, no family history of breast, ovarian, or cervical cancer
Education	All may be used
Level of health literacy	High
Employment, if any - present and past, noting any current stresses	Currently works as teacher
Home/homeless - type of dwelling, number of stories, owned or rented	Domiciled, has home
Financial situation- any current stresses	No current stresses

AAIM PRIMARY CARE TRACK TOOLKIT

Insurance Status (e.g., un/under/insured, public/private, HMO/PPO)	Insured
Habits (i.e., diet, exercise, caffeine, smoking, alcohol, drugs)	Current ½ PPD smoker x 15 years, occasional alcohol use, no IVU
Activities (i.e., hobbies, sports, clubs, friends)	All may be used
Typical day - what is the usual daily routine	Teaches during the week

CASE INFORMATION	
Chief Concern: What the patient will say when greeted by the student. The patient's primary reason for seeking medical care often stated in his/her own words.	This is a follow-up in which you desire contraception.
Additional Concerns: Other, if any, concerns the patient has today (i.e., symptoms, requests, expectations, etc.) that will become part of set agenda.	You would like a form of birth control and have heavy periods associated with painful cramping.
<p>THE PATIENT STORY: The SP will be asked to tell their symptom story and the personal and emotion impact for each of their concerns. You will want to write this in the patient voice. The symptom story should be able to answer this question: "Tell me more about [chief concern/additional concern], starting at the beginning and bringing me up to now."</p> <p>The personal context should be able to answer questions concerning the broader personal/psychosocial context of symptoms, especially the patient beliefs/attributions.</p> <p>The emotional context should be able to ask how are you doing with this, how does this make you feel, how has this affected you emotionally? IMPACT: How has this affected your life? How has this been for your family?</p>	You would like to try a contraceptive option other than barrier methods (i.e. condoms) for which you have used since the birth of your son two years ago.
<p>HISTORY OF PRESENT ILLNESS: Although some of the HPI will be given in the patient's symptom story, the learners will expand the story during the direct question section. Describe the detailed history, usually about the chief concern, which the student must develop in order to make a useful assessment of the problem:</p>	
<ul style="list-style-type: none"> • "What are you hoping to get out of the consultation?" – essentially, you would like to try a contraceptive option other than barrier methods (i.e. condoms) for which you have used since the birth of your son two years ago. • Try to determine which type of method will be most appropriate for the patient: <ul style="list-style-type: none"> ○ "Do you have any preferences?" – State you would like an option that is long lasting but reversible. ○ "What is your preferred delivery?" – State you would prefer not to take a pill every day. ○ "Would you tolerate injections?" – You would, but state that you are also interested in hearing about an IUD or implant. ○ Ask about patient's desires regarding future pregnancy – Unsure, so would like a reversible method. • Describe a Method in More Detail (can use "Birth Control Method Options" chart during the encounter to help you): At this point, the resident will describe one of the contraceptive methods to you (IUD, transdermal 	

implant, medroxyprogesterone acetate injection, etc.). They will describe how the method works, the treatment course, the risk of pregnancy, advantages vs. disadvantages, and side effects/effects on menstrual cycles - **If they do not tell you, please ask them about how long the method lasts for, what are the advantages of the method, and the side effects/effects on menstrual cycles. Choose any of the options presented to you so that the learner can counsel you on the method.**

REVIEW OF SYSTEMS: Significant positives and negatives

Positives: heavy menstrual bleeding and cramping	Negative: chest pain, SOB, nausea, vomiting, lower extremity swelling

<u>Past medical history</u>	+protein S deficiency with active lower-extremity DVT, +obesity, +HLD, +pre-DM, no HTN, no cancer, no migraine with aura, no CVA, no MI
Medication allergies (Name and reaction)	none
Environmental allergies (Name and reaction)	none
Illnesses	none
Vaccinations	All may be used
Surgeries	None
Accidents/ injuries/ trauma	None
Hospitalization	Two vaginal deliveries

Inclusive sexual and reproductive history

Sexual practices Sexual partners Protection: Use of safer sex practices Use of birth control if appropriate Risk of intimate partner violence	Monogamous with husband, no history of STI's, uses condoms intermittently, no other form of birth control ever used. Not breastfeeding.
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Ob/GYN HISTORY	Age of onset of menses: 14, +menorrhagia, + dysmenorrhea Age of menopause: N/A Number of pregnancies: 2 Number of live births: 2, no recent pregnancy, last pregnancy two years ago Number of miscarriages 0 Number of abortions 0
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Medications	Coumadin 4mg nightly, Lipitor 40mg daily
Immunizations	All may be used
Tobacco products: Cigarettes	○ Current ½ PPD smoker x 15 years
Alcohol: wine	○ Current, occasional
Drugs	○ Never
Diet (describe)	Well balanced, not vegan or vegetarian
Exercise (describe)	Regularly exercises
List any other important social history or information important to this case	N/A

<u>Family history</u>	
Mother, Father, Siblings, Grandparents, and other significant findings.	Mother has protein S deficiency, no family history of breast, ovarian, or cervical cancer

Physical Exam- List exam maneuvers expected for this case and any abnormal findings that SP will simulate. (tenderness, hyper-hypo reflex, rebound, weakness etc.)	
Learners are NOT required to perform a physical exam during the encounter, only a medical history and counseling takes place.	
<u>PHYSICAL EXAM FINDINGS</u>	
1) Written in layman's terms	N/A for encounter
2) General appearance- affect, appearance, position of patient at opening (i.e. sitting, laying down, holding abdomen etc.)	N/A for encounter
3) Vital signs	N/A for encounter
4) Specific findings and affect	N/A for encounter
5) Response to certain physical movements	N/A for encounter
<u>DIAGNOSIS AND DIFFERENTIAL</u>	
Diagnosis with support from positive and negative history and PE findings	Initiate contraception for a woman with contraindication to estrogen given known thrombophilia (on coumadin) and active smoker.
Differential with support from positive and negative history and PE findings	Initiate contraception for a woman with contraindication to estrogen given known thrombophilia (on coumadin) and active smoker.
<u>MANAGEMENT OR DIAGNOSTIC PLAN</u>	
	<p>Estrogens are contraindicated—except, perhaps, in select cases.</p> <p>This patient has many reasons for heavy bleeding. She is on warfarin, which effectively inhibits synthesis of vitamin K-dependent coagulation factor. She also has fibroids and adenomyosis. The latter is a difficult condition to control, as the location of the intramucosal glands makes treatments such as ablation, dilation and curettage, and oral agents ineffective.</p> <p>All estrogen-containing formulations (pills, ring, patch) are contraindicated in women with acute venous thromboembolism (VTE) and known thrombophilia.</p> <p>The updated CDC guidelines for the use of hormonal contraceptives state that patients who receive anticoagulation for at least 3 months and who have no history of VTE or a low risk of recurrent VTE (no evidence of active cancer, no known thrombophilia) may use estrogen-containing contraceptives in select cases (category 3—theoretical risk outweighs benefits, but not an absolute contraindication). Although this is not common clinical practice, select patients may benefit from menstrual cycle control while receiving anticoagulation. However, other contraceptive alternatives are preferred if possible.</p>

	<p><i>Progestin-only treatments</i> such as the levonorgestrel releasing IUD's: Mirena, Skyla, Kyleena and Liletta (if the fibroids do not distort the uterine cavity), medroxyprogesterone acetate, Depo-Provera (intramuscular or subcutaneous) and the etonogestrel implant (Nexplanon) are nonsurgical options that may reduce menorrhagia and are safer alternatives for patients with thrombophilia. Keep in mind that the implant may not be as effective in those with a BMI>30. The ParaGard (copper) intrauterine device would provide non-hormonal contraception without diminishing menorrhagia. A viable option for women finished with childbearing is hysterectomy, which provides contraceptive benefit and definitive treatment of menorrhagia due to adenomyosis.</p> <p>Laboratory screening for VTE is not required before starting estrogen-containing contraceptives. However, one should take a detailed history and inquire about VTE events or a family history of recurrent VTE.</p>
PROFESSIONALISM ISSUES OR CHALLENGES:	None

Case 2: Uncontrolled Hypertension, Resident 2

Date: 2/14/19

Primary Case Author: Heather Viola

Secondary Case Author: Tamara Goldberg

Standardized Patient Educator: Heather Viola

Name of Case: Uncontrolled Hypertension

Name of educational and or assessment activity: Contraception Counseling Encounter

Patient Name: Barbara

Chief Complaint: Heavy menses associated with painful cramping, desires contraception. Patient has a history of uncontrolled hypertension with all recent blood pressures in the office and at home >140/90. She also has a history of diabetes.

Most likely Diagnosis and Differential with rationale from history and/or physical exam:

Contraception initiation for a woman with contraindication to estrogen given uncontrolled hypertension and active smoker. Must avoid estrogen-containing contraceptives when counseling patient during encounter.

Domains:

- ☐ Communication and Interpersonal skills
- ☐ Medical History
- ☐ Shared Decision Making
- ☐ Patient Education
- ☐ Clinical Reasoning

Type and level of learner: Resident learner

AAIM PRIMARY CARE TRACK TOOLKIT

Case Objectives: please list specific objectives for each of the domains you have checked above:

1. Perform a thorough history, including menstrual, obstetric, gynecologic, contraceptive and sexual history.
2. Identify appropriate contraception options for a patient based on medical co-morbidities and patient preference.
3. Demonstrate effective patient-centered contraceptive counseling in the outpatient clinic setting.

SETTING: outpatient, in patient, ED, home, nursing home, rehab, group etc.	Outpatient
PATIENT PROFILE: Information about the “patient” that helps select an SP and helps the learner get an understanding of them as a person. SP will know more information about the patient than learner will ever ask but allows SP to portray a fully developed patient personality. If none of the items below are particulars for the case, please write “all may be used.”	
Age range	36
Religious/spiritual background	All may be used
Sex (e.g., male, female, intersex, transwoman, transman)	Female
Sexual Orientation (e.g., heterosexual, lesbian, gay, bisexual, pansexual, queer, asexual)	Heterosexual
Gender expression (e.g., man, woman, gender queer)	Woman
Race/ethnicity:	All may be used
Physical description (e.g., BMI, height range)	Obese (BMI 31)
Physical limitations	None
Patient appearance (e.g., disheveled, hospital gown, business casual, casual)	Pleasant, well-groomed
Moulage + location (e.g., none, bruises, scars, body piercing, tattoos)	None
Affect (e.g., pleasant, cooperative)	Pleasant
Family group (e.g., who is family, who they live with)	Lives with husband and two sons
Education	All may be used
Level of health literacy	High
Employment, if any - present and past, noting any current stresses	Currently works as teacher
Home/homeless - type of dwelling, number of stories, owned or rented	Domiciled, has home
Financial situation- any current stresses	No current stresses
Insurance Status (e.g., un/under/insured, public/private, HMO/PPO)	Insured
Habits (i.e., diet, exercise, caffeine, smoking, alcohol, drugs)	Current ½ PPD smoker x 15 years, occasional alcohol use, no IVDU
Activities (i.e., hobbies, sports, clubs, friends)	All may be used
Typical day - what is the usual daily routine	Teaches during the week

CASE INFORMATION	
Chief Concern: What the patient will say when greeted by the student. The patient's primary reason for seeking medical care often stated in his/her own words.	This is a follow-up in which you desire contraception.
Additional Concerns: Other, if any, concerns the patient has today (i.e., symptoms, requests, expectations, etc.) that will become part of set agenda.	You would like a form of birth control and have heavy periods associated with painful cramping.
<p>THE PATIENT STORY: The SP will be asked to tell their symptom story and the personal and emotion impact for each of their concerns. You will want to write this in the patient voice. The symptom story should be able to answer this question: "Tell me more about [chief concern/additional concern], starting at the beginning and bringing me up to now."</p> <p>The personal context should be able to answer questions concerning the broader personal/psychosocial context of symptoms, especially the patient beliefs/attributions.</p> <p>The emotional context should be able to ask how are you doing with this, how does this make you feel, how has this affected you emotionally? IMPACT: How has this affected your life? How has this been for your family?</p>	You would like to try a contraceptive option other than barrier methods (i.e. condoms) for which you have used since the birth of your son two years ago.
HISTORY OF PRESENT ILLNESS: Although some of the HPI will be given in the patient's symptom story, the learners will expand the story during the direct question section. Describe the detailed history, usually about the chief concern, which the student must develop in order to make a useful assessment of the problem:	
<ul style="list-style-type: none"> • "What are you hoping to get out of the consultation?" – essentially, you would like to try a contraceptive option other than barrier methods (i.e. condoms) for which you have used since the birth of your son two years ago. • Try to determine which type of method will be most appropriate for the patient: <ul style="list-style-type: none"> ○ "Do you have any preferences?" – State you would like an option that is long lasting but reversible. ○ "What is your preferred delivery?" – State you would prefer not to take a pill every day. ○ "Would you tolerate injections?" – You would, but state that you are also interested in hearing about an IUD or implant. ○ Ask about patient's desires regarding future pregnancy – Unsure, so would like a reversible method. • Describe a Method in More Detail (can use "Birth Control Method Options" chart during the encounter to help you): At this point, the resident will describe one of the contraceptive methods to you (IUD, transdermal implant, medroxyprogesterone acetate injection, etc.). They will describe how the method works, the treatment course, the risk of pregnancy, advantages vs. disadvantages, and side effects/effects on menstrual cycles - If they do not tell you, please ask them about how long the method lasts for, what are the advantages of the method, and the side effects/effects on menstrual cycles. Choose any of the options presented to you so that the learner can counsel you on the method. 	
REVIEW OF SYSTEMS: Significant positives and negatives	
Positives: heavy menstrual bleeding and cramping	Negative: chest pain, SOB, nausea, vomiting, lower extremity swelling

AAIM PRIMARY CARE TRACK TOOLKIT

<u>Past medical history</u>	+HTN (uncontrolled, consistently >140/90 on recent office visits and on home BP monitoring), +obesity, +DM2, no cancer, no migraine with aura, no CVA, no MI
Medication allergies (Name and reaction)	none
Environmental allergies (Name and reaction)	none
Illnesses	none
Vaccinations	All may be used
Surgeries	None
Accidents/ injuries/ trauma	None
Hospitalization	Two vaginal deliveries
<u>Inclusive sexual and reproductive history</u>	
Sexual practices Sexual partners Protection: Use of safer sex practices Use of birth control if appropriate Risk of intimate partner violence	Monogamous with husband, no history of STI's, uses condoms intermittently, no other form of birth control ever used. Not breastfeeding.
Ob/GYN HISTORY	Age of onset of menses: 14, +menorrhagia, + dysmenorrhea Age of menopause: N/A Number of pregnancies: 2 Number of live births: 2, no recent pregnancy, last pregnancy two years ago Number of miscarriages 0 Number of abortions 0
Medications	Lisinopril 20mg daily, Lipitor 40 mg daily, Metformin 1000mg BID
Immunizations	All may be used
Tobacco products: Cigarettes	○ Current ½ PPD smoker x 15 years
Alcohol: wine	○ Current, occasional
Drugs	○ Never
Diet (describe)	Well balanced, not vegan or vegetarian
Exercise (describe)	Regularly exercises
List any other important social history or information important to this case	N/A
<u>Family history</u>	
Mother, Father, Siblings, Grandparents, and other significant findings.	no family history of breast, ovarian, or cervical cancer, no family history of blood clots or thrombophilia
Physical Exam- List exam maneuvers expected for this case and any abnormal findings that SP will simulate. (tenderness, hyper-hypo reflex, rebound, weakness etc.)	
Learners are NOT required to perform a physical exam during the encounter, only a medical history and counseling takes place.	
<u>PHYSICAL EXAM FINDINGS</u>	
6) Written in layman's terms	N/A for encounter

AAIM PRIMARY CARE TRACK TOOLKIT

7) General appearance- affect, appearance, position of patient at opening (i.e. sitting, laying down, holding abdomen etc.)	N/A for encounter
8) Vital signs	N/A for encounter
9) Specific findings and affect	N/A for encounter
10) Response to certain physical movements	N/A for encounter
<u>DIAGNOSIS AND DIFFERENTIAL</u>	
Diagnosis with support from positive and negative history and PE findings	Initiate contraception for a woman with contraindication to estrogen given uncontrolled hypertension and active smoker.
Differential with support from positive and negative history and PE findings	Initiate contraception for a woman with contraindication to estrogen given uncontrolled hypertension and active smoker.
<u>MANAGEMENT OR DIAGNOSTIC PLAN</u>	
	<p><i>Avoid estrogen-containing products.</i></p> <p>Avoid all estrogen-containing formulations (pills, ring, patch) in patients with uncontrolled HTN and diabetes with micro/macro vascular complications.</p> <p>According to the WHO and CDC guidelines, women with controlled or uncontrolled hypertension should not be offered combined oral contraceptives, the patch (Ortho Evra), or the ring (NuvaRing) (category 3— theoretical or proven risks outweigh the benefits, and category 4, an unacceptable health risk if the contraceptive method is used, for systolic blood pressure greater than 160 mm Hg or diastolic blood pressure greater than 100 mm Hg).</p> <p>The progesterone-only pill (“mini pill”), medroxyprogesterone acetate, Depo-Provera (intramuscular or subcutaneous), levonorgestrel releasing IUD’s: Mirena, Skyla, Kyleena and Liletta, the copper intrauterine device (ParaGard), and the etonogestrel implant (Nexplanon) are all safer options. The hormone releasing options may give the additional benefit of reducing menorrhagia and dysmenorrhea. Keep in mind that the implant may not be as effective in those with a BMI>30. This patient does not desire to take pills so the long acting reversible options may be best in this scenario.</p> <p>A small subset of patients develop elevated blood pressure after starting hormonal contraceptives. Estrogen-containing hormones can increase the liver’s output of angiotensinogen, which is a renin substrate that activates the renin-angiotensin-aldosterone system. If this becomes clinically apparent, these patients should refrain from estrogen-containing products and use progestin-only formulations as a safer alternative.</p> <p>Diabetic patients with microvascular complications of retinopathy or nephropathy and any patient with macrovascular disease (stroke, cardiovascular disease) should not be offered estrogen-containing contraception.</p>
<u>PROFESSIONALISM ISSUES OR CHALLENGES:</u>	
	None

Case 3: Migraine with Aura, Resident 3

Date: 2/14/19

Primary Case Author: Heather Viola

AAIM PRIMARY CARE TRACK TOOLKIT

Secondary Case Author: Tamara Goldberg

Standardized Patient Educator: Heather Viola

Name of Case: Migraine with Aura

Name of educational and or assessment activity: Contraception Counseling Encounter

Patient Name: Barbara

Chief Complaint: Heavy menses associated with painful cramping, desires contraception. Patient has a history of migraines with aura (feeling of numbness that travels up her arm to her face prior to the onset of the migraine, lasting about 10 minutes and then subsiding).

Most likely Diagnosis and Differential with rationale from history and/or physical exam:

Contraception initiation for a woman with contraindication to estrogen given history of migraine with aura and active smoker. Must avoid estrogen-containing contraceptives when counseling patient during encounter.

Domains:

- ☐ Communication and Interpersonal skills
- ☐ Medical History
- ☐ Shared Decision Making
- ☐ Patient Education
- ☐ Clinical Reasoning

Type and level of learner: Resident learner

Case Objectives: please list specific objectives for each of the domains you have checked above:

1. Perform a thorough history, including menstrual, obstetric, gynecologic, contraceptive and sexual history.
2. Identify appropriate contraception options for a patient based on medical co-morbidities and patient preference.
3. Demonstrate effective patient-centered contraceptive counseling in the outpatient clinic setting.

<u>SETTING</u> : outpatient, in patient, ED, home, nursing home, rehab, group etc.	Outpatient
<u>PATIENT PROFILE</u> : Information about the “patient” that helps select an SP and helps the learner get an understanding of them as a person. SP will know more information about the patient than learner will ever ask but allows SP to portray a fully developed patient personality. If none of the items below are particulars for the case, please write “all may be used.”	
Age range	36
Religious/spiritual background	All may be used
Sex (e.g., male, female, intersex, transwoman, transman)	Female
Sexual Orientation (e.g., heterosexual, lesbian, gay, bisexual, pansexual, queer, asexual)	Heterosexual
Gender expression (e.g., man, woman, gender queer)	Woman

AAIM PRIMARY CARE TRACK TOOLKIT

Race/ethnicity:	All may be used
Physical description (e.g., BMI, height range)	Obese (BMI 31)
Physical limitations	None
Patient appearance (e.g., disheveled, hospital gown, business casual, casual)	Pleasant, well-groomed
Moulage + location (e.g., none, bruises, scars, body piercing, tattoos)	None
Affect (e.g., pleasant, cooperative)	Pleasant
Family group (e.g., who is family, who they live with)	Lives with husband and two sons
Education	All may be used
Level of health literacy	High
Employment, if any - present and past, noting any current stresses	Currently works as teacher
Home/homeless - type of dwelling, number of stories, owned or rented	Domiciled, has home
Financial situation- any current stresses	No current stresses
Insurance Status (e.g., un/under/insured, public/private, HMO/PPO)	Insured
Habits (i.e., diet, exercise, caffeine, smoking, alcohol, drugs)	Current ½ PPD smoker x 15 years, occasional alcohol use, no IVDU
Activities (i.e., hobbies, sports, clubs, friends)	All may be used
Typical day - what is the usual daily routine	Teaches during the week

CASE INFORMATION	
Chief Concern: What the patient will say when greeted by the student. The patient's primary reason for seeking medical care often stated in his/own words.	This is a follow-up in which you desire contraception.
Additional Concerns: Other, if any, concerns the patient has today (i.e., symptoms, requests, expectations, etc.) that will become part of set agenda.	You would like a form of birth control and have heavy periods associated with painful cramping.
<p><u>THE PATIENT STORY:</u> The SP will be asked to tell their symptom story and the personal and emotion impact for each of their concerns. You will want to write this in the patient voice. The symptom story should be able to answer this question: "Tell me more about [chief concern/additional concern], starting at the beginning and bringing me up to now."</p> <p>The personal context should be able to answer questions concerning the broader personal/psychosocial context of symptoms, especially the patient beliefs/attributions.</p>	You would like to try a contraceptive option other than barrier methods (i.e. condoms) for which you have used since the birth of your son two years ago.

<p>The emotional context should be able to ask how are you doing with this, how does this make you feel, how has this affected you emotionally? IMPACT: How has this affected your life? How has this been for your family?</p>	
<p>HISTORY OF PRESENT ILLNESS: Although some of the HPI will be given in the patient's symptom story, the learners will expand the story during the direct question section. Describe the detailed history, usually about the chief concern, which the student must develop in order to make a useful assessment of the problem:</p>	
<ul style="list-style-type: none"> • "What are you hoping to get out of the consultation?" – essentially, you would like to try a contraceptive option other than barrier methods (i.e. condoms) for which you have used since the birth of your son two years ago. • Try to determine which type of method will be most appropriate for the patient: <ul style="list-style-type: none"> ○ "Do you have any preferences?" – State you would like an option that is long lasting but reversible. ○ "What is your preferred delivery?" – State you would prefer not to take a pill every day. ○ "Would you tolerate injections?" – You would, but state that you are also interested in hearing about an IUD or implant. ○ Ask about patient's desires regarding future pregnancy –Unsure, so would like a reversible method. • Describe a Method in More Detail (can use "Birth Control Method Options" chart during the encounter to help you): At this point, the resident will describe one of the contraceptive methods to you (IUD, transdermal implant, medroxyprogesterone acetate injection, etc.). They will describe how the method works, the treatment course, the risk of pregnancy, advantages vs. disadvantages, and side effects/effects on menstrual cycles - If they do not tell you, please ask them about how long the method lasts for, what are the advantages of the method, and the side effects/effects on menstrual cycles. Choose any of the options presented to you so that the learner can counsel you on the method. 	
<p>REVIEW OF SYSTEMS: Significant positives and negatives</p>	
Positives: heavy menstrual bleeding and cramping	Negative: chest pain, SOB, nausea, vomiting, lower extremity swelling
<u>Past medical history</u>	+migraine with aura (stable on sumatriptan PRN and prophylactic propranolol, headaches associated with numbness that travels up your arm to your face prior to onset of migraine, lasts 10 minutes),+GERD, +obesity, no HTN, no cancer, no CVA, no MI
Medication allergies (Name and reaction)	none
Environmental allergies (Name and reaction)	none
Illnesses	none
Vaccinations	All may be used
Surgeries	None
Accidents/ injuries/ trauma	None
Hospitalization	Two vaginal deliveries
Inclusive sexual and reproductive history	
Sexual practices Sexual partners Protection: Use of safer sex practices Use of birth control if appropriate Risk of intimate partner violence	Monogamous with husband, no history of STI's, uses condoms intermittently, no other form of birth control ever used. Not breastfeeding.
Ob/GYN HISTORY	Age of onset of menses: 14, +menorrhagia, + dysmenorrhea Age of menopause: N/A Number of pregnancies: 2

AAIM PRIMARY CARE TRACK TOOLKIT

	Number of live births: 2, no recent pregnancy, last pregnancy two years ago Number of miscarriages 0 Number of abortions 0
Medications	Sumatriptan 100mg PRN, Propranolol daily, Omeprazole 20mg daily
Immunizations	All may be used
Tobacco products: Cigarettes	<input type="radio"/> Current ½ PPD smoker x 15 years <input type="radio"/> Current, occasional <input type="radio"/> Never
Alcohol: wine	
Drugs	
Diet (describe)	Well balanced, not vegan or vegetarian
Exercise (describe)	Regularly exercises
List any other important social history or information important to this case	N/A
<u>Family history</u>	
Mother, Father, Siblings, Grandparents, and other significant findings.	no family history of breast, ovarian, or cervical cancer, no family history of blood clots or thrombophilia
Physical Exam- List exam maneuvers expected for this case and any abnormal findings that SP will simulate. (tenderness, hyper-hypo reflex, rebound, weakness etc.) Learners are NOT required to perform a physical exam during the encounter, only a medical history and counseling takes place.	
<u>PHYSICAL EXAM FINDINGS</u>	
11) Written in layman's terms	N/A for encounter
12) General appearance- affect, appearance, position of patient at opening (i.e. sitting, laying down, holding abdomen etc.)	N/A for encounter
13) Vital signs	N/A for encounter
14) Specific findings and affect	N/A for encounter
15) Response to certain physical movements	N/A for encounter
<u>DIAGNOSIS AND DIFFERENTIAL</u>	
Diagnosis with support from positive and negative history and PE findings	Initiate contraception for a woman with contraindication to estrogen given migraine with aura and active smoker.
Differential with support from positive and negative history and PE findings	Initiate contraception for a woman with contraindication to estrogen given migraine with aura and active smoker.
<u>MANAGEMENT OR DIAGNOSTIC PLAN</u>	Estrogens are contraindicated. All estrogen-containing formulations (pills, ring, patch) are contraindicated in women with migraine with aura. Migraine headaches with aura have been associated with up to a twofold increased risk of stroke in otherwise healthy women taking OCPs. Smoking further increases this risk. For this reason, migraine headache with aura is a contraindication to combined hormonal contraceptives. Stroke risk is not increased in patients with migraine without aura; therefore, combined hormonal contraceptives is not contraindicated unless the patient has other major risk factors for stroke (e.g., smoking, hypertension, diabetes) or unless the patient's headaches are exacerbated when OCPs are started.

	<p>In general, OCPs may be cautiously considered in women who have migraine headaches if they do not have focal neurologic symptoms (such as aura), do not smoke, are younger than 35 years, and are otherwise healthy.</p> <p>The progesterone-only pill (“mini pill”), medroxyprogesterone acetate, Depo-Provera (intramuscular or subcutaneous), levonorgestrel releasing IUD’s: Mirena, Skyla, Kyleena and Liletta, the copper intrauterine device (ParaGard), and the etonogestrel implant (Nexplanon) are all safer options. The hormone releasing options may give the additional benefit of reducing menorrhagia and dysmenorrhea. Keep in mind that the implant may not be as effective in those with a BMI>30. This patient does not desire to take pills so the long acting reversible options may be best in this scenario.</p>
PROFESSIONALISM ISSUES OR CHALLENGES:	None

Appendix G. Case Scenarios with Explanations

CASE 1: THROMBOPHILIA Resident 1

A 36-year-old female with a body mass index of 31 kg/m² (obese) has a past medical history of protein S deficiency with active lower-extremity deep vein thrombosis, for which she is taking Coumadin. She experiences menorrhagia and dysmenorrhea due to intramural fibroids seen on transvaginal ultrasound. She desires contraception. How do you counsel her?

Estrogens are contraindicated—except, perhaps, in select cases.

This patient has many reasons for heavy bleeding. She is on warfarin, which effectively inhibits synthesis of vitamin K-dependent coagulation factor. She also has fibroids and adenomyosis. The latter is a difficult condition to control, as the location of the intramural glands makes treatments such as ablation, dilation and curettage, and oral agents ineffective.

All estrogen-containing formulations (pills, ring, patch) are contraindicated in women with acute venous thromboembolism (VTE) and known thrombophilia.

The updated CDC guidelines for the use of hormonal contraceptives state that patients who receive anticoagulation for at least 3 months and who have no history of VTE or a low risk of recurrent VTE (no evidence of active cancer, no known thrombophilia) may use estrogen-containing contraceptives in select cases (category 3—theoretical risk outweighs benefits, but not an absolute contraindication). Although this is not common clinical practice, select patients may benefit from menstrual cycle control while receiving anticoagulation. However, other contraceptive alternatives are preferred if possible.

Progestin-only treatments such as the levonorgestrel releasing IUDs: Mirena, Skyla, Kyleena and Liletta (if the fibroids do not distort the uterine cavity), medroxyprogesterone acetate, Depo-Provera (intramuscular or subcutaneous) and the etonogestrel implant (Nexplanon) are nonsurgical options that may reduce menorrhagia and are safer alternatives for patients with thrombophilia. Keep in mind that the implant may not be as effective in those with a BMI>30. The ParaGard (copper) intrauterine device would provide non-hormonal contraception without diminishing menorrhagia. A viable option for women finished with childbearing is hysterectomy, which provides contraceptive benefit and definitive treatment of menorrhagia due to adenomyosis.

Laboratory screening for VTE is not required before starting estrogen-containing contraceptives. However, one should take a detailed history and inquire about VTE events or a family history of recurrent VTE.

CASE 2: HYPERTENSION Resident 2

A 36-year-old female with PMHx of obesity, HTN and DM2 presents to clinic requesting contraception. Her blood pressure is consistently >140/90 mm Hg on multiple office visits and ambulatory monitoring. She also experiences menorrhagia and dysmenorrhea due to intramural fibroids. She desires contraception. How do you counsel her?

Avoid estrogen-containing products.

Avoid all estrogen-containing formulations (pills, ring, patch) in patients with uncontrolled HTN and diabetes with micro/macro vascular complications.

According to the WHO and CDC guidelines, women with controlled or uncontrolled hypertension should not be offered combined oral contraceptives, the patch (Ortho Evra), or the ring (NuvaRing) (category 3—theoretical or proven risks outweigh the benefits, and category 4, an unacceptable health risk if the contraceptive method is used, for systolic blood pressure greater than 160 mm Hg or diastolic blood pressure greater than 100 mm Hg).

The progesterone-only pill (“mini pill”), medroxyprogesterone acetate, Depo-Provera (intramuscular or subcutaneous), levonorgestrel releasing IUD’s: Mirena, Skyla, Kyleena and Liletta, the copper intrauterine device (ParaGard), and the etonogestrel implant (Nexplanon) are all safer options. The hormone releasing options may give the additional benefit of reducing menorrhagia and dysmenorrhea. Keep in mind that the implant may not be as effective in those with a BMI>30. This patient does not desire to take pills so the long acting reversible options may be best in this scenario.

A small subset of patients develop elevated blood pressure after starting hormonal contraceptives. Estrogen-containing hormones can increase the liver’s output of angiotensinogen, which is a renin substrate that activates the renin-angiotensin-aldosterone system. If this becomes clinically apparent, these patients should refrain from estrogen-containing products and use progestin-only formulations as a safer alternative. Diabetic patients with microvascular complications of retinopathy or nephropathy and any patient with macrovascular disease (stroke, cardiovascular disease) should not be offered estrogen-containing contraception.

CASE 3: MIGRAINE WITH AURA Resident 3

A 36-year-old female with PMHx of obesity, GERD, and migraine presents to the clinic requesting contraception. Her migraines have not changed or worsened in the past few years, stable on sumatriptan PRN abortive therapy and prophylactic propranolol. Migraines are associated with a feeling of numbness that travels up her arm to her face prior to the onset of the migraine, lasting ~10minutes. She also experiences menorrhagia and dysmenorrhea due to intramural fibroids. She desires contraception. How do you counsel her?

Estrogens are contraindicated.

All estrogen-containing formulations (pills, ring, patch) are contraindicated in women with migraine with aura.

Migraine headaches with aura have been associated with up to a twofold increased risk of stroke in otherwise healthy women taking OCPs. *Smoking further increases this risk.* For this reason, migraine headache with aura is a contraindication to combined hormonal contraceptives. Stroke risk is not increased in patients with migraine without aura; therefore, combined hormonal contraceptives is not contraindicated unless the patient has other major risk factors for stroke (e.g., smoking, hypertension, diabetes) or unless the patient's headaches are exacerbated when OCPs are started.

In general, OCPs may be cautiously considered in women who have migraine headaches if they do not have focal neurologic symptoms (such as aura), do not smoke, are younger than 35 years, and are otherwise healthy.

The progesterone-only pill (“mini pill”), medroxyprogesterone acetate, Depo-Provera (intramuscular or subcutaneous), levonorgestrel releasing IUD’s: Mirena, Skyla, Kyleena and Liletta, the copper intrauterine

device (ParaGard), and the etonogestrel implant (Nexplanon) are all safer options. The hormone releasing options may give the additional benefit of reducing menorrhagia and dysmenorrhea. Keep in mind that the implant may not be as effective in those with a BMI>30. This patient does not desire to take pills so the long acting reversible options may be best in this scenario.

Appendix H. Contraceptive Counseling and Education Checklist

Contraceptive Counseling and Education Checklist

Counselor Name: _____ Date: _____

Observer Name: _____

Purpose: Use this checklist to note and provide feedback to a contraceptive counselor after observing their counseling session. You can also use this checklist to self-assess your own counseling and education skills.

How to Use: When observing a counseling session, notice how the counselor performs the bulleted skills or practices. Mark the level of competence you perceive (1 for needs improvement, 2 for satisfactory, or 3 for excellent). If an item is not done, but should have been, leave it blank. If an item is not applicable, mark N/A. Some items may not be necessary for a particular session. Write comments in the space available. Then, after the visit, share your observations with the counselor in a private place and discuss.

Process

Assessment

Beginning (and throughout)			
Establish and maintain rapport with the client			
	1 Needs Improvement	2 Satisfactory	3 Excellent
<ul style="list-style-type: none"> Warmly greet the client, introduce yourself. 1 2 3 N/A Discuss the reason(s) for the visit 1 2 3 N/A Explain confidential services. 1 2 3 N/A Ask open-ended questions 1 2 3 N/A Actively listen and share your perceptions 1 2 3 N/A Affirm client responses 1 2 3 N/A Summarize key points 1 2 3 N/A <p>Other practices observed:</p> <p>_____</p> <p>_____</p>	Comments		
Middle			
Assess the client's needs and personalize discussions accordingly			
	1 Needs Improvement	2 Satisfactory	3 Excellent
<ul style="list-style-type: none"> Review and update the client's medical, sexual and social history 1 2 3 N/A Ask about the client's thoughts and desires regarding future pregnancy..... 1 2 3 N/A Explore client preferences regarding method characteristics. 1 2 3 N/A (risk of pregnancy, how method is used, menstrual side effects, other side effects, and other considerations) Ask about client knowledge and experience with birth control 1 2 3 N/A Respectfully explore factors that may influence method preference 1 2 3 N/A (past experiences, beliefs, cultural and religious considerations, and feelings about the methods) <p>Other practices observed:</p> <p>_____</p> <p>_____</p>	Comments		

Over to Continue >>

Middle continued

Work with the client interactively to establish a birth control method plan

① Needs Improvement ② Satisfactory ③ Excellent

- Help the client identify the method that matches their preferences ①②③ *VA*
- Ask open-ended questions about concerns related to method choice. ①②③ *VA*
- Discuss partners and others who may influence decision making and method use ①②③ *VA*
- Help the client make a plan for correct use of their selected method ①②③ *VA*
- Include information about STD/HIV protection and emergency contraception, as appropriate ①②③ *VA*

Other practices observed:

Comments

Provide information that can be understood and retained by the client

① Needs Improvement ② Satisfactory ③ Excellent

- Actively engage the client in conversation (not a presentation) ①②③ *VA*
- Provide accurate information ①②③ *VA*
(correct use, effectiveness, benefits, side effects, potential risks, STD/HIV prevention)
- Use clear, understandable words, images, models and/or sample methods... ①②③ *VA*
- Use numbers and comparisons that are easy to understand ①②③ *VA*
- Provide balanced, unbiased, tailored information ①②③ *VA*
- Assess and address myths and misinformation in a respectful and affirming way ①②③ *VA*

Other practices observed:

Comments

Closing

Confirm client understanding

① Needs Improvement ② Satisfactory ③ Excellent

- Ask the client to tell and show the main things they learned (teach-back) and provide additional information as needed ①②③ *VA*
- Address possible barriers to method use, specific to the client and their method ①②③ *VA*
- Confirm the client's plan for correct method use and follow up ①②③ *VA*
(including what to do if dissatisfied with the method, back-up method, STD/HIV protection, and emergency contraception, as needed)
- Provide contact information and future opportunities for follow up, other methods or services ①②③ *VA*
- Summarize key points and end with a friendly close ①②③ *VA*

Other practices observed:

Comments

Improvement Plan:

Long Acting Reversible Contraception Curriculum

Rebecca A. Berman, MD

At Brigham and Women's Hospital, we have developed a three pronged long acting reversible contraception curriculum.

All residents (categorical and primary care) get a 2.5 hour didactic and interactive training session on long acting reversible contraception counseling. The first hour of the training is a lecture with an overview of long acting reversible contraception, including efficacy, indications and contraindications and counseling strategies. The second section entails 1.5 hours of small group counseling role plays using cases, with mentorship from general internist and OB-GYN faculty.

For our primary care residents only, we have a representative of Merck train our interns in nexplanon placement.

The most challenging portion has been getting residents enough practice doing the nexplanon to feel competent. While one is technically competent to place Nexplanon after the Merck training, we like to have our residents do two to three implantations and three to five removals to feel comfortable with any potential complications.

We have explored four ways to get practice experiences:

1. Family medicine experiences - The major limitation was low frequency in a busy family medicine practice, however, if you have anyone who does dedicated women's health or procedure clinics that could help
2. Gynecology experiences - Again, the limitation was frequency of nexplanon placement in a given half day clinic
3. Internal medicine providers in our larger resident/faculty practice who place nexplanons during dedicated urgent care half days - This has proved to be our best experience since we have more control over how these sessions work. To avoid the issues of low frequency, interested residents schedule their "patient follow up" time during these half days and are paged by the relevant attending when a nexplanon patient arrives. The remainder of their "patient follow up" time is spent doing their clinic paperwork from their continuity clinic. Residents can do this multiple times over the course of the year to gain adequate experience. A scheduler makes sure only one resident does it on a given half day.
4. We have also trialed having the internists who are trained in nexplanon available as on-call preceptors for resident primary care patients willing to get nexplanon. This is just getting off the ground and has been limited by having enough preceptors who feel competent so that someone is available. Ideally you would have five attendings who are competent so that each day of the week a different attending could be on-call. This method avoids the issues of low-volume in a given half day. No-show rates for nexplanon placement are reasonably high in our clinic which has added an extra layer of complication.

Outpatient Point of Care Ultrasound for Internal Medicine Residency Programs

Corey Dean, MD

Introduction

Point of care ultrasound (POCUS) refers to a limited protocol performed at the patient's bedside by a clinician to assess a questionable diagnosis (rotator cuff tear vs. bursitis of the shoulder, etc.) The power of POCUS is the internist's ability to acquire and interpret information at the bedside, enhancing the doctor-patient relationship by communicating directly with the patient our findings used to aid in the clinical assessment and improve our diagnostic skills. This is distinctive from formal diagnostic ultrasonography performed by sonographers and interpreted by radiologists with years of training to interpret an ultrasound report.

Bedside point of care ultrasound has been in use in obstetrics/gynecology and emergency medicine for many years. As the cost of ultrasound is no longer prohibitive, the use of POCUS has increased dramatically over the past 10 years in other areas of medicine. In addition to being cheaper, ultrasound models are smaller and of better quality. The evidence clearly demonstrates that using POCUS improves clinical outcomes, reduces failure and complication rates during procedures (1), helps to narrow differential diagnoses (2), improves clinical accuracy (3), reduces cost (4) and reduces the use of ionizing radiation of computed tomography (CT) imaging (5).

In addition, the use of ultrasound at the bedside hopes to improve the doctor patient relationship, increasing patients' confidence in the diagnosticians' clinical skills (6). This has been shown to improve patient satisfaction as well (7).

Each year, more and more medical schools are integrating POCUS into their educational curricula. Multiple studies have shown that the current generation of medical students and residents have increased exposure to POCUS, and they desire more POCUS training during internal medicine residency (8). Therefore, to remain competitive in the recruitment of top notch medical students, it is important for Internal medicine training programs to incorporate a robust POCUS curriculum.

Aim of POCUS

The key aim in the use of POCUS is to gather additional data and aid in the procedural skills at the bedside to provide better diagnostic acumen for the Internal Medicine physician. POCUS is especially empowering and critical for front-line providers in rural, underserved, or resource-constrained environments where advanced imaging and specialists are in scarce supply (9). Internists are often the providers in these circumstances as they are managing the most complex and ill patients in a variety of settings. Therefore, learning to use this bedside ultrasound tool as an extension of the physical exam and improve procedural skills is crucial for the future of internal medicine residency training.

Knowledge and Skills (Ultrasound Language and Procedural Technique)

In the appropriate setting, the resident should demonstrate the ability to apply knowledge of:

1. Basic ultrasound use
 - a. Physics: the frequency, wavelength, power, and intensity as it relates to the ultrasound should be understood as it applies to POCUS knobology.
 - b. Knobology and POCUS Probe use: understand the appropriate probe selection, potential clinical application, and ultrasound technology (linear probe best for Musculoskeletal, etc.).

- c. Images: learn how to use gain and depth functions and understand the key aspects of echogenicity in POCUS use (hypo-, hyper- and anechoic). Understand the concept of anisotropy in POCUS images.
- d. Transducers: the four main types are linear, curvilinear, phased array, and intracavitary; each probe has a different crystal arrangement, size, and footprint that determines its preferred applications.
- e. Orientation: Sagittal, transverse, and coronal planes; probe positioning and its relation to the patient's body and screen image.
- f. Scanning techniques: Sliding, fanning, rotating, and rocking.
- g. Modes: Two-dimensional, M-mode, and Doppler imaging.
- h. Safety: understand probe cleaning and which studies need sterile vs. aseptic technique.
- i. Documentation: Understand the importance and methods of archiving and retrieving images; applicability to clinical decision making and quality improvement.

2. Procedural guidance

The physician should be able to identify appropriate ultrasound anatomy, including the appearance of echogenicity with a structure characterized as hyperechoic (white on screen, i.e. rim of bone), hypoechoic (gray on screen ie tendon) and anechoic (black on screen, i.e. fluid) and its translation into identifying appropriate anatomy to aid the procedure. Use of ultrasound images in performing the procedure should be noted in the consent form and procedure note.

3. POCUS as a diagnostic tool-indications for outpatient ultrasound

- a. Skin: abscesses v. cellulitis, lipomas and cysts
- b. Vascular: deep venous thrombosis
- c. Neck and Thyroid: solid v. cystic masses
- d. Cardiac: ventricular systolic dysfunction (CHF) and pericardial effusion
- e. Pulmonary: hyperinflation (COPD), pulmonary edema (CHF), and pleural effusion
- f. Abdomen and Kidney: cholelithiasis, hepatosplenomegaly, ascites or kidney stones
- g. Shoulder, wrist, hip, and knee aspiration and injection
- h. Joint ganglion cysts

POCUS Implementation: Preparation for the Curriculum

The initial key steps in starting outpatient bedside POCUS in your internal medicine residency program are outlined.

Identify Your Programmatic Goals

Enhance physical exam + improve patient care + medical education.

Identify a Faculty Champion and Key Core Faculty

Provide educational support with hands on CME opportunities, longitudinal use of POCUS within the outpatient clinic setting, specialization opportunities (sports medicine, etc.) within your program, and internal review opportunities within the institution to ensure quality standards (aspirational goal: 150 total scans, 25-50 reviewed POCUS scans and/or five to 10 reviewed procedures is the standard for competency).

Investment In POCUS Equipment

Determine if purchasing handheld ultrasound devices versus portable larger studio ultrasound units is desired by your institution. There are many things you need to consider in this decision, such as cost considerations, portability versus quality of the image, and procedural use.

- Handheld ultrasound devices: advantages in reduced cost and better portability
- Portable larger studio ultrasound units: advantages in better quality images and ease of procedural use for hands free procedures.

Training and Education of Residents and Peripheral Faculty

Focused and longitudinal training via simulation (flexible educational opportunities with built in evaluation testing tools for competency), ultrasound boot camps (short, intense half day training by the core faculty ultrasound experts) and hands on use within the outpatient clinic for improved clinical assessment and procedural skills.

Maintenance

- Equipment and accessories (sterile probe covers, ultrasound cleaning supplies, ultrasound replacement, etc): cost and dedicated funding
- Updated educational and evidence based curriculum every one to two years
- Billing/coding: determine as an institution if use of ultrasound is for educational and patient care alone (no billing and coding of ultrasound use), or if desire to bill and code for the scans and procedures done during the patient care experiences. In either format, it is important to have a budget to allow for sustainability of the POCUS curriculum in your institution (CME, ultrasound replacement costs, etc.)
- Documentation and consent with patients: verbal v. written
- Cleaning and care of ultrasound

Curricular Implementation

This curriculum should be taught during both focused and longitudinal experiences throughout the residency curriculum. Specifics of certain approaches have been described in the literature, with consensus being that a POCUS curriculum should contain certain components (9-18).

Faculty Champion

A key component of a successful POCUS curriculum is the presence of a skilled and motivated faculty champion. It is recommended that at least one faculty member should be designated as the curriculum leader for ultrasound education and given adequate protected time to develop as a competent ultrasonographer. Protected time also will be needed to develop and implement the curriculum and train other faculty members as the curriculum progresses (9). Lastly, CME opportunities for continued education and remaining on the cutting edge will be needed for the POCUS champion.

Formal Curriculum

Because POCUS education in internal medicine residency training is in its infancy, each residency will develop its own POCUS curriculum until a more formalized process can be developed (11, 15-18). It is recommended that all curricula contain a combination of didactics, ultrasound trainers, live models, direct patient scanning with hands-on learning, individual portfolio creation, knowledge/skill assessment, and competency evaluation (16).

Didactic Education

POCUS didactics can be taught via residency boot camps (short half day experiences aimed at training the residents in knobology and the vocabulary of ultrasound use) or computerized simulations (asynchronous learning at the pace and availability of the resident). Ultrasound trainers (comprehensive ultrasound models capable of replicating the patient scanning experience) are more costly, but great for practicing image acquisition and interpretation (16). Utilizing both methods of education are helpful in resident training. Simulations are especially useful when skilled faculty time is limited because it is better to allocate teaching time for hands-on learning.

Hands-On Education

POCUS is best taught at the patient's bedside. With the lead of the faculty champion, core outpatient faculty must also be trained to utilize POCUS during patient care to teach and model hands-on education with the residents in training. This can be done with live models with normal anatomy as standardized patients as part of a half day course. Other options for hands-on education include the use of simulation and models. The best scenario for hands on training involves the use of direct patient scanning. After learners have acquired basic POCUS image acquisition and interpretation skills, teaching directly at the patient bedside is a powerful way for learners to solidify their knowledge (16).

Clinic-Based Educational Ultrasound

Patients should provide informed verbal consent before they are subjected to an educational ultrasound (ultrasounds done by an internal medicine resident in training) (9, 11). In this verbal consent, patients should be informed that the use of POCUS is for educational purposes only. No clinical decisions should be based on educational ultrasounds unless first confirmed with a formal ultrasound examination or discussed with a credentialed provider (9). If anything concerning is found, a credentialed provider should be notified immediately and all resident ultrasound images should be reviewed by faculty, either during the scan or later by image review. One pearl for educational image review is when a diagnostic ultrasound has been done by a sonographer and interpreted by a radiologist, this is one of the best opportunities to correlate your own ultrasound diagnostic acumen for comparison.

Knowledge and Skill Assessment

Knowledge assessment is best done through either hands on or computerized simulation with well-designed tests to provide residents with formative feedback. Skill assessment is best done under direct observation by the faculty member at the bedside either during simulation (computerized, ultrasound trainers, or live models) or with direct patient care (9, 16).

Quality Improvement/Assessment

The implementation of POCUS training within a residency setting should be accompanied by ongoing assessment of quality, including but not limited to image storage and archiving; periodic review and audit of a certain number/percentage of completed exams; attention to training and documentation of clinical activity for those providing instruction in POCUS; and ongoing continuing medical education for the core faculty (CME) (9-18).

Competency Assessment

Competency assessment is done to provide formative (at the bedside) and summative (over the course of the residency training) feedback on the use of bedside POCUS. Each internal medicine residency program should develop its own criteria to quantify the number of precepted scans needed to assess their learners for POCUS competency. Most well-established POCUS curricula have used 150 total scans for general point-of-care ultrasound competency, 25 to 50 supervised scans for a specific diagnostic exam, and five to 10 supervised

scans for ultrasound-guided procedures (9, 14). This is aspirational for any resident physician and is the goal for the ultrasound champion and core faculty.

Evaluation through Competencies and Milestones

The structure of evaluation of competencies in resident education has been well described in the family, emergency and internal medicine literature (9, 10, 16). The key educational competencies are:

- Assess anatomy, physiology, and pathology with POCUS (medical knowledge).
- Advance POCUS knowledge with appropriate precepting, electives, and use of website resources (practice-based learning and improvement).
- Communicate the results of a POCUS scan to the patient and treatment team and document the results appropriately in the medical record (interpersonal and communication skills).
- Talk to the patient about the risks and benefits of POCUS and alternatives to POCUS and obtain verbal consent prior to a POCUS scan (professionalism).
- Utilize POCUS to decrease time to diagnosis, decrease procedure complications, and expedite medical care (systems-based practice) (9, 16).

Specific milestones have been mapped in emergency medicine (10). Internal medicine has specific milestones that can be applied to evaluations of the resident's competency in POCUS use at the bedside (11, 16). These milestones fall nicely into:

- Practice based learning: learners are evaluated in stages of training based upon beginner, mid-, and advanced skills attainment in use of bedside POCUS.
- Interpersonal communication skills: in advanced levels of bedside POCUS use, learners are evaluated in their ability to convey the clinical information to the patient during the exam.
- Professionalism: utilizing verbal or written consent, the doctor-patient relationship and professionalism are evaluated with each bedside point of care ultrasound.
- Systems-based practice: utilizing proper bedside POCUS image acquisition and interpretation, systems-based practice is evaluated with advanced resident POCUS use.

Example: Modified according to the Emergency Medicine Residency Milestone Project (10)

Diagnostic and Therapeutic Procedures: Uses goal directed, focused ultrasound for the bedside diagnostic evaluation of internal medicine conditions and procedural guidance					
Not achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Describes the indications for outpatient ultrasound	Explains how to optimize ultrasound images and Identifies the proper probe for each of the focused ultrasound applications	Performs goal-directed focused ultrasound exams. Correctly interprets acquired images.	Expands ultrasonography skills to include: outpatient procedural skills (MSK, skin, etc.)	Performs a minimum of 25 supervised ultrasound examinations and 10 reviewed procedures.
Comments:					

Suggested Evaluation Methods: OSCE, videotape review, simulation or hand on patient checklist

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Web Resources

[ACPOne.org/pocus](https://www.acponline.org/pocus)

Point-of-Care Ultrasound: Foundational Skills for Internists courses

Point-of-Care Ultrasound: Advanced Skills for Outpatient Practice

Primary Care Office-Based Ultrasound: <https://www.acponline.org/cme-moc/cme/primary-care-office-based-ultrasound>

Pearls on physical exam with pocket sized ultrasound:

<https://www.acponline.org/cme-moc/online-learning-center/pearls-a-physical-exam-with-pocket-sized-ultrasound-for-routine-use>

TRUSTTM (Train the ultrasound trainer) courses:

<https://www.ultrasoundtraining.com.au/courses/category/train-the-ultrasound-trainer-trust>

5 Minute Sono: <http://5minsono.com/>

SonoSim.com

AIUM.org

AMSSM.org

Acknowledgement

Special thanks to Dr. Renee Dversdal and Dr. Ola Al Sous for their review of this document.

Creating a Home Visit Curriculum

Stacy Charat, MD

Scope of Practice/Goals of Visit

Home visits can address a wide range of goals, and the structure of visits will be informed by the intended scope of practice.

- Social interaction to promote patient-physician relationship
- Social determinants of health exercise
- Home safety evaluation
- Geriatrics assessment/mental status evaluation
- Full medical appointment
- Specific chronic disease management (CHF, hypertension, diabetes)
- Medication reconciliation
- Post-discharge visits and/or readmission prevention

Identify Potential Partnerships

Consider partnering with existing programs at your institution or in the community to harness available resources and ensure sustainability of the program.

- High risk care management programs (often run by nursing staff) that identify high risk patients
- Existing home-based primary care programs (VA, family medicine, geriatrics, private community physicians)
- Local EMS companies
- Community agencies (local neighborhood or cultural organizations, churches, elder care programs)
- Home care agencies (visiting nurses, home health aide programs)

Legal Concerns

Confer with your local residency program leadership, risk management, and malpractice insurance agency to ensure that your residents are protected for the type of visit that is planned.

- Does your malpractice insurance cover residents for visits provided in the home?
- Will residents be directly supervised by attendings during the visit, or will they discuss the cases after the fact?
- Can you use telemedicine to support supervision during visits?
- How will you document patient visits, if at all?

Financial Concerns

Consider whether you intend to bill for visits

- What are the billing requirements for a home visit in your health care system?
- How does attending supervision (or lack thereof) impact billing?

Safety Concerns

Providing guidelines for the careful selection of patients to visit can reduce unnecessary risks for your residents.

- Consider screening for the presence of dogs, weapons, family members, children in the home, mental health/substance abuse

- Research the neighborhoods residents plan to visit to ensure they have safe access to patients (without undermining the educational value for the residents to learn about social determinants of health in neighborhoods with safety concerns)
- Consider whether an attending will accompany residents
- How will residents travel to and from the patient homes? Are there institutional vehicles available? Public transportation? Private vehicles?

Supplies

Provide a “black bag” for residents to take with them for visits and include items that are relevant for the intended scope of practice.

- Blood pressure cuff and stethoscope
- Pulse oximeter
- Glucometer and test strips
- Monofilaments
- Wound Care supplies: gauze, sterile saline, xeroform, tegaderm, Kerlix, ACE wrap
- Blood drawing supplies: tourniquet, tubes, gauze, band-aids, needles, syringes, sharps container, ice packs/cooler
- Mini-mental status or SLUMS assessment forms
- Home safety evaluation checklists (see References)

Example Curriculum from the UCSD Internal Medicine Primary Care Pathway

- During PGY-1 and PGY-2 years, all residents shadow providers in the home based primary care program at the VA on their geriatrics and continuity clinic rotations
- Primary Care residents participate in a 1-hour lecture/discussion on home visits from providers who perform home visits (partnership with the geriatrics fellowship.)
- We first perform a group home visit with an attending, for a patient in the attending’s panel
- Prior to the first independent home visit, we perform a workshop on learning about the neighborhoods of the patients they intend to visit, including a review of common social determinants that impact health. This includes:
 - Google mapping local grocery stores, parks, gyms, community centers, etc.
 - Using the local Department of Public Health website to identify markers of health by zip code
 - Use local public transportation websites to map route to office visits
- Residents go in pairs to visit 2 patients (one from each resident’s panel.) Patients are carefully selected by the residents, in discussion with faculty, to maximize safety and educational opportunities.
- We facilitate a group debriefing session to review the home visits and discuss the benefits and challenges

Resources

- University of Miami Home Safety Module
<https://www.pogoe.org/AngelUploads/applications/homesafety/HomeSafety.html>
- University of Miami Home Safety Checklist <https://www.mededportal.org/publication/1063/>
- UC Denver Family Medicine Home Visit Curriculum Overview
<http://www.ucdenver.edu/academics/colleges/medicalschoo/departments/familymed/education/pre doc/MSA/Documents/Rachel%20Rodriguez%20-%20MSA%20Presentation.pdf>
- UC Irvine Checklist for a Home Visit of a Recently Hospitalized Geriatric Patient
<https://www.pogoe.org/productid/20798>

- Unwin BK, Tatum III PE. House Calls. *Am Fam Physician*. 2011 Apr 15;83(8):925-931.
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Advocacy Curricula

Catherine Rich, MD & John Moriarty, MD

Advocacy is recognized by our professional organizations as an essential component of physician's professionalism. While by no means is the need for advocacy unique to primary care, many primary care tracks across the country have created robust and long lasting advocacy curricula as a key component of their program that differentiates them from categorical counterparts. Residents often embrace these curricula as they tap into their innate sense of altruism and can be an antidote to the many frustrations they experience working on behalf of patients.

Advocacy curricula in primary care tracks will vary depending on the expertise of faculty, the interests of residents and the issues that are pertinent to your program/hospital/surrounding community. Most programs contain a didactic and an experiential component. The didactics can focus on skills (how to write persuasively, how to speak influentially, etc.), as well as historical and political context for health inequities that residents may experience through their care of patients. An understanding of the social determinants of health is a necessary part of any advocacy curriculum. In addition, basic education on understanding the legislative process and points at which physicians can influence debate can be helpful for residents. The experiential component will draw from local resources and issues. For instance, many programs partner with local advocacy groups to host Hill Days, in which residents are prepped to speak with legislators about issues relevant to health care.

Advocacy curricula are most successful when they are responsive to the needs and interests of the resident adult learner. They require protected time in the curriculum for both didactic and experiential components. Faculty should be selected and supported in their time to insure a high-quality experience.

Social Determinants of Health Curricula

Joan Addington-White, MD & Peggy Leung, MD

Introduction

Good health for an individual and community is linked with social factors which include access to food, housing, health care, education opportunities, neighborhood safety, and social support and integration. As we teach residents to care for patients' medical needs, we must also teach physicians to recognize the public health threat of unmet social determinants. If we can train clinicians and physician leaders to recognize and advocate for patients who suffer unjustly from socioeconomic factors, such as compromised employment and health care access, the lack of educational opportunity, the toll of racism, addiction, incarceration, homelessness, or cultural issues unique to specific regions, then we can begin to provide pathways for residents to reach individuals and communities where they are, and in the process promote enhanced health and healing.

One of the most effective approaches is one that exposes house staff to diverse patient populations in both the inpatient and outpatient setting supported by multidisciplinary teams with the knowledge, insight, and the communication skills required to reach the communities where patients are from. The resident continuity clinic is an ideal place to learn how to participate in this kind of patient care. We recognize we may be addressing residencies that are just starting to develop an approach and curriculum to health inequities, so we want to emphasize how to initiate and enhance an existing curriculum.

Ideally, being a part of a safety net hospital or clinic will provide most of the clinical experiences necessary to focus learning on these issues. However, it is important to bear in mind that health care disparities exist in every community, in urban, suburban, and rural settings.

Developing a Curriculum

Samples from several curricular blocks from UCSF's ZSFG Primary Care Internal Medicine Training Program are provided. Having a two-year longitudinal curriculum about vulnerable populations, our curriculum is based on one-month blocks involving specific objectives, focused reading, didactics, and experiences within the communities we serve. We will demonstrate how we organize parts of these blocks over the course of a typical year. The curriculum is both didactic and experiential, including lectures, journal club, site visits and discussion/reflection on experiences covered under the talk theme. It is also important to think about provider wellness and debriefing needs. Monthly reflective groups on topics such as making medical mistakes and surviving, discharging patients to the street, narrative medicine workshops, or book clubs with dinner can be incorporated as well.

Introduction to Health Equities	
Objectives	1) Distinguish among differences in health, health disparities, and health equity.
	2) Explore your own personal & social identity as it relates to health care disparities.
	3) Recognize how health care disparities have affected health outcomes historically and currently.
	4) Understand the appropriate diagnosis and treatment of the representative diseases that make up the majority of health care disparities.

	Medical topics with disparities in diagnosis and treatment		Understanding bias, privilege, and patient mistrust	
Site visit	<i>Talk</i>	<i>Article</i>	<i>Talk</i>	<i>Article</i>
Visit Medical Respite Navigation Center*	HIV	NEJM Perspective: AIDS in America - Back in the Headlines at Long Last	Power and Privilege	White Privilege: Unpacking the Invisible Knapsack Race and Trust in the Healthcare System
	Chronic Renal Insufficiency	The Lancet: Seminar: Chronic kidney disease Adv Chronic Kidney Dis.: Socioeconomic Disparities in Chronic Kidney Disease	Stereotype Threat	Stereotype Threat and Health Disparities: What Medical Educators and Future Physicians Need to Know Whistling Vivaldi and Other Clues to How Stereotypes Affect Us (Harvard Education Review)
	Breast Cancer: A review of diagnosis and treatment.	NEJM Perspective: Structural Racism - A 60-Year-Old Black Woman with Breast Cancer	Disparities in Cancer Diagnosis	Racial and Ethnic Differences in Prostate Cancer Survivors' Perceived Engagement in Treatment Decision-Making

*Medical Respite is a center where homeless patients may be discharged following a hospitalization. There is a nurse on site and patients can stay during the day and overnight to rest. Many other respites and shelters are only available during the day. Wound care, PT, and OT are also available on-site. Residents interface with the respite center's case worker during the patient's hospitalization prior to discharge. Residents can additionally visit their patients at this site. During this site visit, residents capture a greater sense of the resources available during transitions of care.

Substance Use Disorders		
<i>Objectives</i>	1)To describe the burden of substance use on individual and public health 2)Describe and practice Screening, Brief Intervention, Referral and Treatment (SBIRT) 3)Understand particular diseases associated with substance use 4)Understand respective models of care which meet patients where they are in recovery	
	Medical topics	Low Barrier Treatment

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Site visit	Talk	Article	Talk	Article
OBIC*	Skin Infections Associated with drug use	NEJM: Bacterial infections in Drug users. NEJM 353;18 www.nejm.org 11/3/2005 https://www.nejm.org/doi/pdf/10.1056/NEJMra042823	Alcohol use disorders	https://www.ncbi.nlm.nih.gov/pubmed/16670409
	Alcohol use disorders and treatment	https://jamanetwork.com/journals/jamapsychiatry/fullarticle/202789	Harm reduction and low Barrier Buprenorphine treatment	https://www.motherjones.com/politics/2016/12/opioid-treatment-clinic-buprenorphine-san-francisco-homeless/ https://www.motherjones.com/politics/2016/12/opioid-treatment-clinic-buprenorphine-san-francisco-homeless/
	Methadone treatment In primary care	Methadone in Primary Care - One Small Step for Congress, One Giant Leap for Addiction Treatment	Chronic Pain associated With Substance use	NEJM: Opioid Abuse in Chronic Pain - Misconceptions and Mitigation Strategies

*OBIC treatment Center-see articles under harm reduction and Buprenorphine Treatment. This is a center in San Francisco that provides low barrier opioid treatment on a daily basis. One of our faculty members is the medical director, Christy Soran MD. She is also a preceptor in the resident clinic and helps residents treat and refer to this program.

Incarceration				
Objectives	1)Understand the history of mass incarceration and recognize how the criminal justice system itself is a social determinant of disease			
	2)Evaluate the pretrial process as a determinant of health			
	3)Describe the acute and chronic problems diagnosed and treated in correctional settings			
	4)Recognize the best ways to work with wardens, guards, police and parole officers			
	5)Describe the health risks associated with reentry to the community from jail or prison			
	Medical topics Associated with incarceration		The Social implications of Mass incarceration	
Site Visit	Talk	Article	Talk	Article

San Quentin Health Fair https://sanquentinnews.com/san-quentin-holds-15th-annual-health-fair/	Chronic Medical problems in incarcerated patients	Prevalence of chronic medical conditions among jail and prison. Binswager https://www.ncbi.nlm.nih.gov/pubmed/19648129#	Mass Incarceration	Annu. Rev. Public Health 2012. 33:325–39. Public Health and Incarceration. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3329888/
SF Jail	How to care for a patient with a history of Incarceration	ETHICS CASE How to Talk with Patients about Incarceration and Health https://journalofethics.ama-assn.org/issue/incarceration-and-correctional-health-care	An Aging population	Coming Home: Health Status and Homelessness Risk of Older Pre-Release Prisoners Discrimination based on criminal record and health care utilization among men recently released from prison: https://www.ncbi.nlm.nih.gov/pubmed/25642407
Transition Clinic https://transitionsclinic.org/transitions-clinic-network/	Musculoskeletal Pain in the incarcerated population	The Structural Violence of Hyperincarceration - A 44-Year-Old Man with Back Pain	Reentry to the community.	Transitions Clinic: Creating a Community-Based Model of Health Care for Recently Released CA Prisoners “From the prison door right to the sidewalk, ... Ingrid Binswanger MD https://www.ncbi.nlm.nih.gov/pubmed/21802731

Site Visits:

- 1) The San Quentin Health Fair is a wonderful opportunity not only to visit a prison but to be an active part of a routine day where residents can discuss concerns and answer questions with inmates. The introduction of the day and these individual meetings informs residents about the resources available. To establish these connections it is helpful to contact alumni who have gone on to work at local jails and prisons. Recognize that there are security checks that need to be fulfilled weeks before residents and faculty can tour these facilities or work in clinics.
- 2) SF Jail sends patients to ZSFG. When discharging patients back to SF Jail, the residents call the medical director to sign these patients out. Residents can spend time at the jail clinics on this block.
- 3) Transitions Clinic is an innovative way of caring for patients just released, and introduces residents to the importance of community health care workers as a crucial part of the transition process.

Community Tour and Asset Mapping

In addition to didactics and theme-curated site visits and experiences, we recommend guiding residents through a community tour with an integrated asset-mapping activity, to showcase both the strengths and vulnerabilities inherent to the specific neighborhood they are serving. The community tour could be a walking, driving, or virtual tour depending on the setting of your clinic site. Urban centers with a larger local density of resources could lend themselves better to a walking tour. In areas with more sparsely scattered resources, a virtual tour through online mapping programs (such as Google Maps) may suffice. The tours can be led by

faculty members, a senior resident, a patient/neighborhood leader or a trusted neighborhood community-based organization. Stops could include grocery stores, food pantries, community/senior centers, local parks, integral neighborhood community-based organizations, religious centers, benefits enrollment centers, pharmacies, hospitals, etc. On the tour, residents should note the density of services (banks, check cashing services, title loan business, billboard advertising, fast food restaurant density, etc), transportation availabilities, travel times, and identify potential barriers.

For a simple start to asset-mapping prior to a tour, residents can use online mapping programs such as Google Maps as a starting point. Or they might utilize the many existing online referral platforms and resource directories that programs such as NowPow, GNYHA's HITE, UCSF SIREN Network and others to search for services that they think might improve the quality of life in that community. Additionally, the residents can research a community-based organization in order to provide a "tour group" with an introduction to a particular location, and then go on to discuss why the organization is a valuable asset to the community during the tour itself. For a more formalized take on asset-mapping, UCLA Center for Health Policy and Research has developed a full asset-mapping curriculum (<http://healthpolicy.ucla.edu/programs/health-data/data-resources/Pages/Asset-Mapping.aspx>)

Other helpful tools include:

- The Kaiser Family Foundation's Issue brief, "Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity", which describes the need for addressing SDOH and which public health interventions are currently implemented at the state and federal level that may impact your community. These too could be interesting topics to bring up during a tour.
<http://files.kff.org/attachment/issue-brief-beyond-health-care>
- The US Office of Disease Prevention and Health Promotion's Social Determinants of Health (SDOH) page, which reviews SDOH concepts and describes national priorities and interventions. They have links to local projects that may involve your community. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>
- ChangeLab Solutions is a comprehensive resource with case studies from across the nation that highlights how particular SDOH were identified, how CBOs got involved, and how change was eventually implemented. Sharing these case studies with residents can help foster a framework for future innovations to address issues they see while on their community tour.
<https://www.changelabsolutions.org/our-work/work-areas>

How to Establish a Community Based Organization (CBO) Partnership

Another crucial part of teaching SDOH is to highlight advocates already embedded within the community. Creating resident immersion training programs with a CBO, is an integrative way for residents not only to explore existing structures that address SDOH, but also a way to recognize their own potential roles in addressing SDOH. Greater New York Hospital Association (GNYHA) provides a clear framework to ensure mutually beneficial partnerships, while creating resident immersion training programs with CBOs.
https://www.gnyha.org/wp-content/uploads/2018/09/ImprovingResidencyToolkit_WEB.pdf.

Identify a CBO Partner

After defining the educational objectives and goals for an immersion training program, the next step lies in identifying local CBOs that already address that issue. The recent rise of online referral platforms and resource directories (such as NowPow, Healthify, GNYHA's HITE, and UCSF SIREN Network), have made the process simpler. It is also important to note that your hospital's community affairs department may often have a list of CBOs that they have previously partnered with on initiatives, or another list of CBOs who have reached out

previously in efforts to build a relationship. They can be helpful in establishing initial contacts, and also in providing financial and logistic support.

Share and Define Goals for a Mutually Beneficial Partnership

It is important to establish a win-win situation with a CBO, through meetings structured to identify factors important to each stakeholder. GNYHA recommends completing a collaborative worksheet to clearly share a mission statement, mutual learning objectives and activities, shared scheduling and logistics, as well as defining measures and outcomes of success held in common. Also, it is important to discuss what potential legal clearances (background checks or onboarding rules) are needed in order to start/continue the relationship.

Develop a Training Agenda

Prior to the immersion activity, residents need to be oriented. Orientation activities may include the following: tours of the CBO facilities, meetings with CBO leadership and staff, or presentations by CBO staff on the history/mission/values of the CBO. Discussion by CBO staff on the population they serve, utilizing attending case lectures and conferences, role-playing potential patient encounters with CBO staff are also helpful. Creating a training agenda may require multiple meetings with program directors to develop materials, as well as discussions with the CBO staff in order to prepare them for interacting with residents.

Select the Residents Who Will Be Involved

Please also take into account the complexity of residency scheduling and the CBO's capacity to accommodate residents. This may change the scope of who can participate. One should communicate frequently with those responsible for resident scheduling and those for CBO scheduling to avoid cancelations. The particular independence and clinical skills required of the CBO activities may dictate the appropriate PGY- level for those who participate.

Prepare Residents and CBO Staff on Experience

Preparing residents may involve readings or didactics to familiarize them with the chosen population. Setting expectations on training goals can better connect residents to the value of the experience. Practicing communication strategies with residents may be helpful for those who may come from a different cultural and social background. Preparing CBO staff is also highly crucial. Sharing and defining resident roles and expectations for the CBO staff will help ensure there is a shared vision. Reinforcing the values that connected the residency to the CBO and the reasons for the partnership will help improve cohesion.

Evaluate Resident Experience

This can be used to assess if the pre-defined objectives were met and to further improve upon the partnership in future iterations. This can readily be in survey or written reflection form. Also, providing a venue for debriefing and reflection with CBO staff and residents as well as with residents and program leadership can help further solidify the relationship and strengthen the experience.

Health Care Systems and Leadership

Mina Ma, MD

The UCLA primary care track added a health care systems and leadership curriculum to fulfill the increasing need for physicians to be “at the table” in health care systems management and leadership decisions. In order to create sustainability in primary care, transformation of our current model of health care to newer innovative models that are capable of providing high value care for all of our patients will require physician leaders who can serve as “change agents.”

Providing trainees with a working knowledge of the health care systems they currently work in, as well as exposing them to systems outside of their own, provides a framework to help them understand who the “players” are, that they will need to influence. Small group discussions with the chief medical officer, chief financial officer, chair of medicine, and chief quality officer exposes them to the language of the executives in the C-suite that many seasoned faculty learn after years of being in practice. Field trips to competing hospital systems such as Kaiser and CareMore to hear presentations from their leadership as well as a meeting with the Director of the Department of Health Services for Los Angeles County all provide exposure to the mission and vision of various organizations all dedicated to providing the best quality care for our patients. Underlying all these organizations are financial constraints, thus providing the trainees with this aspect of medicine is unpleasant, but necessary.

As an additional benefit to increasing the trainees knowledge about the non-medical components of health care, they gain understanding of the various practice options they can choose from for their future careers. Each of the sit down sessions serves a dual purpose of a “practice” group interview.

Curriculum Overview

Patient Centered Medical Home

This lecture provides the foundation for elements of a well-functioning patient centered medical home which gives the trainees background for understanding the different health care sites that they will see during the rotation. See attachment for questions provided to the trainees.

State of the Department

This is a small group discussion with our Chair of Medicine who provides a brief introduction to the state of the department, along with vision and goals.

Health Care Leadership

Discussions with the chief medical officer, chief financial officer, vice dean, and others all are informative for the trainees. Asking the individual to focus on their career trajectories provides a more personal view of the individuals that run our health care system.

Value Based Care

As our nation’s health care costs continue to rise, more insurance companies are looking towards a model of payment to providers based on the outcome of the patient. Understanding Fee for Service vs. Value Based Healthcare as well as Merit-Based Incentive Payment System (MIPS) and the Medicare Access and CHIP Reauthorization Act (MACRA) will be important for our trainees as they begin to understand the business of medicine.

"Money and Medicine" Documentary

This film examines the escalating costs of health care in America. Trainees can watch together or by themselves prior to a group discussion regarding the information found in the film, which highlights Intermountain Health in Utah v. UCLA (not in a good light).

Understanding Physician Compensation

Review the RVU and Medical Group Management Association (MGMA) data found in our health systems provider compensation and production report with trainees which informs their knowledge regarding industry wide standards as well as provides insight into incentives to attract and recruit physicians.

Leadership Training

Since leadership has a lot to do with knowing yourself, communicating, and approaches to leadership situations, these sessions are designed to get them reflecting and sharing their thoughts with each other. Myers-Briggs Type Indicator (MBTI) personality inventory or Metarasa (MMDI) Personality Test Lecture on Organizational Behavior from a Health Policy and Management professor.

Share examples of current leadership conundrums (i.e., you are the lead physician in a practice, and one of your physicians habitually comes in late; you are a senior female physician and one of your colleagues with lesser credentials has just been asked to lead a project that you had been de facto lead on, and/or you find out that all the males on the team spent the weekend golfing together and you were not invited) and role play your handling of these situations.

Retirement Planning

A personal financial planning session is provided in this curriculum block to ensure that they are strategically investing in their future.

Field Trips

- Veterans Administration – Greater Los Angeles Healthcare System – West Los Angeles Medical Center
- County Hospital – Olive View Medical Center or Martin Luther King, Jr. Hospital
- Kaiser Permanente, Southern California
- CareMore – Integrated health plan and care delivery system for Medicare and Medicaid patients
- Community Health Centers

Quality Improvement Curriculum

Rachel Wong, MD & Patricia Ng, MD

Educational Goals and Objectives

- Understand fundamental principles and concepts in quality improvement.
- Gain familiarity with models of quality improvement, basic terminology and applications of quality improvement tools.
- Obtain skills in redesigning health systems and enhancing quality and safety of patient care through implementation of a QI project.
- Apply knowledge through identification of areas for improvement, data collection and storage, analysis, implementation of continuous quality improvement and reporting.
- Engage in interdisciplinary collaboration to improve care processes and patient outcomes and provide meaningful contributions at an institutional level.
- Understand the role of quality improvement in individual and institutional practice, and in relation to national priorities and benchmarking in quality initiatives.

Educational Milestones

Practice-Based Learning

- Appreciate the responsibility to assess and improve care collectively for a panel of patients (PBLI-A1)
- Perform or review audit of a panel of patients using standardized, disease-specific, and evidence-based criteria (PBLI-A2)
- Reflect on audit compared with local or national benchmarks and explore possible explanations for deficiencies, including doctor-related, system-related, and patient-related factors (PBLI-A3)
- Identify areas in resident's own practice and local system that can be changed to improve the processes and outcomes of care (PBLI-A4)
- Engage in a quality improvement intervention (PBLI-A5)

Interpersonal Communication Skills

- Engage in collaborative communication with all members of the health care team (ICS-D3)

Professionalism

- Recognize that disparities exist in health care among populations and that they may impact care of the patient (P-K1)
- Advocates for appropriate allocation of limited health care resources (P-K3)

Systems-Based Practice

- Work effectively as a member within the inter-professional team to ensure safe patient care (SBP-B2)
- Recognize health system forces that increase the risk for error including barriers to optimal care (SBP-C1)
- Identify, reflect on, and learn from critical incidents such as near misses and preventable medical errors (SBP-C2)
- Dialogue with care team members to identify risk for and prevention of medical error (SBP-C3)
- Understand the mechanisms for analysis and correction of systems errors (SBP-C4)

- Demonstrate ability to understand and engage in a system level quality improvement initiative (SBP-C5)
- Partner with other health care team professionals to identify, propose improvement opportunities within the system (SBP-C6)

Expected Outcomes

It is the expectation that by the end of PGY-3 year of training in Internal Medicine, residents will be familiar with the principles, methodology and practice of quality improvement and that they will be ready for unsupervised practice in the these activities:

- Analyze own clinical performance data and actively work to improve performance
- Actively engage in quality improvement initiatives
- Demonstrate the ability to apply common principles and techniques of quality improvement to improve care for a panel of patients

Teaching Methods

- Didactic Learning
- Quality Assurance Experience (e.g. Patient Huddle, Peer Review/QA Case)
- Project-Based Experiential Learning

Didactic Materials

- IHI Open School courses 101-105 (intro), 201-202 (intermediate), 301 (project-based)
 - <http://app.ihi.org/lms/onlinelearning.aspx>
- QI and Research: SQUIRE 2.0 Guidelines
 - <http://www.squire-statement.org>
- QI and EBM: JAMA Guide How to Use and Article About Quality Improvement
 - <http://jamanetwork.com/journals/jama/article-abstract/186967>

Project-Based Experiential Learning Materials

- PDSA (Plan-Do-Study-Act) worksheet
- SMART Aim Statement
- Root Cause Analysis: Fishbone Diagram
- Flow Chart
- Run Chart/Control Chart

Project-Based QI “X + Y” Structure (EXAMPLE “4 + 1”)

Example 1

- Five QI projects for the clinic (one project per group)
- Protect QI time for each resident group q5weeks (one session)
 - Same residents/same project
- Each QI group completes all tasks for each project cycle (PDSA planning, implementation, evaluation q5 weeks)
- Interrupted resident implementation of the PDSA at q5 week intervals
- Complete two to three PDSA cycles/year (depending on # of weeks needed for implementation)
- Requires five faculty project preceptors
 - Meet q5 weeks with same QI Group

AAIM PRIMARY CARE TRACK TOOLKIT

Date	QI Group	Project	Weekly QI Task
7/8/16	QI2	Smoking Cessation Project	PDSA Cycle Planning
7/15/16	QI3	Obesity Management Project	PDSA Cycle Planning
7/22/16	QI4	Diabetes Management Project	PDSA Cycle Planning
7/29/16	QI5	Vaccination Project	PDSA Cycle Planning
8/5/16	QI1	Colon Cancer Screening Project	PDSA Cycle Planning
8/12/16	QI2	Smoking Cessation Project	Implementation
8/19/16	QI3	Obesity Management Project	Implementation
8/26/16	QI4	Diabetes Management Project	Implementation
9/2/16	QI5	Vaccination Project	Implementation
9/9/16	QI1	Colon Cancer Screening Project	Implementation
9/16/16	QI2	Smoking Cessation Project	Evaluation
9/23/16	QI3	Obesity Management Project	Evaluation
9/30/16	QI4	Diabetes Management Project	Evaluation
10/7/16	QI5	Vaccination Project	Evaluation
10/14/16	QI1	Colon Cancer Screening Project	Evaluation

Example 2

- Two QI projects for the clinic (longitudinal grp)
- Randomize residents to project 1 or 2
- Protect weekly QI time for residents from each project (1/2 session)
 - Different residents/same project
- “Shift” leadership for PDSA cycles
 - Group 2 leads PDSA cycle 7/8-8/12
 - Group 3 leads PDSA cycle 8/19-9/23
- Facilitates continuous resident implementation of PDSA cycles over the “4+1” five-week block
- Complete 10 PDSA cycles/year
- Peer evaluation of PDSA cycle planners
- Requires two faculty project preceptors
 - Meet weekly with different QI Group
- Faculty: +/- QI or patient safety associate program director, clinical preceptors
- Staff: Care Coordinators, secretarial staff, RNs, LPNs, CAs
-

Date	QI Group	Project 1 (9-10:30)	Project 2 (10:30-12)
7/8/16	QI2	PDSA Cycle Planning	PDSA Cycle Planning
7/15/16	QI3	Implementation	Implementation
7/22/16	QI4	Implementation	Implementation
7/29/16	QI5	Implementation	Implementation
8/5/16	QI1	Implementation	Implementation
8/12/16	QI2	Evaluation	Evaluation
8/19/16	QI3	PDSA Cycle Planning	PDSA Cycle Planning
8/26/16	QI4	Implementation	Implementation
9/2/16	QI5	Implementation	Implementation
9/9/16	QI1	Implementation	Implementation
9/16/16	QI2	Implementation	Implementation
9/23/16	QI3	Evaluation	Implementation

Program Checklist

- Identify QI high priorities areas for your organization (eg. clinic reporting metrics) to align resident QI projects with institutional goals


AAIM PRIMARY CARE TRACK TOOLKIT

- Map out the process and requirements for obtaining permission to carry out QI at your institution, such as IRB or CMO approval
- Identify interested faculty preceptors, faculty members with QI expertise, and bio-statistical resources at your institution for project support
- Create a QI schedule with protected time for residents to plan, implement and evaluate their QI projects
- Identify institutional, regional or national opportunities for residents to present their QI work
- Discuss with QI or clinic administrators if there are opportunities for resident involvement in QI processes such as patient huddles, review of QA cases, etc.

Assessment

- IHI Open School Modules on Quality Improvement certificate
- Residents are evaluated using Direct Observation Tools during their QI project sessions (see Appendix A)
- QI preceptors provide biennial feedback to Clinical Competency Committee

Assessment of Quality Improvement/Assurance



[Subject Name]
[Subject Status]
[Subject Rotation]
[Evaluation Dates]

Evaluator

[Evaluator Name]
[Evaluator Status]

Document whether you observe the resident possessing the specific skills.
It is not expected that a resident master these skills but that they receive feedback on their observed encounter.

A Direct Milestone Evaluation Section has been added to this questionnaire for Faculty evaluating Residents.

Appreciate the responsibility to assess and improve care collectively for a panel of patients (PBLI-A1)	Resident has knowledge and some skill but is not allowed to perform the task independently ○	Resident may act under proactive, ongoing, full supervision ○	Resident may act under indirect supervision (ie. supervision is readily available on request) ○	Resident may act independently ○	Resident may act as a supervisor and instructor ○	N/A ○
Perform or review audit of a panel of patients using standardized, disease-specific and evidence-based criteria (PBLI-A2)	Resident has knowledge and some skill but is not allowed to perform the task independently ○	Resident may act under proactive, ongoing, full supervision ○	Resident may act under indirect supervision (ie. supervision is readily available on request) ○	Resident may act independently ○	Resident may act as a supervisor and instructor ○	N/A ○
Identify areas in a resident's own practice and local system that can be changed to improve the processes and outcomes of care (PBLI-A4)	Resident has knowledge and some skill but is not allowed to perform the task independently ○	Resident may act under proactive, ongoing, full supervision ○	Resident may act under indirect supervision (ie. supervision is readily available on request) ○	Resident may act independently ○	Resident may act as a supervisor and instructor ○	N/A ○
Classify and precisely articulate clinical questions (PBLI-B2)	Resident has knowledge and some skill but is not allowed to perform the task independently ○	Resident may act under proactive, ongoing, full supervision ○	Resident may act under indirect supervision (ie. supervision is readily available on request) ○	Resident may act independently ○	Resident may act as a supervisor and instructor ○	N/A ○
Engage in a quality improvement intervention (PBLI-A5)	Resident has knowledge and some skill but is not allowed to perform the task independently ○	Resident may act under proactive, ongoing, full supervision ○	Resident may act under indirect supervision (ie. supervision is readily available on request) ○	Resident may act independently ○	Resident may act as a supervisor and instructor ○	N/A ○

PDSA Worksheet Template

Problem Statement:

SMART Aim Statement: (Specific, Measurable, Achievable, Realistic, Time-Oriented)

Objectives

Describe the objectives of your PDSA	Measure to determine success

Plan

List the tasks needed to set up this test of change	Person responsible	When to be done	Where to be done

Do

Describe what happened when you ran the test

Study

Describe the measured results and how they compared to the predictions

Act

Describe what modifications to the plan will be made for the next cycle from what you learned (Adapt/Adopt/Abandon)

PDSA Feedback Worksheet

FEEDBACK FOR QI PDSA CYCLE PLANNERS

Objectives:

Intervention:

Time Period:

Group Leaders:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The intervention was effective to meet the stated goal					
This intervention was feasible in this setting					
The intervention adds value to patient care					
This intervention is sustainable in this setting					
This intervention should be adopted into practice					

Comments/Suggestions:

SMART AIM Worksheet

Review of Aim Statement Worksheet

Coalition Name: _____

Aim Statement being reviewed:

Review the Aim Statement for the components of a SMART AIM = Specific, Measureable, Achievable, Realistic and Timely

1. **SPECIFIC** – Is the statement precise about what the team hopes to achieve?
2. **MEASURABLE** – Are the objectives measureable? Will you know whether the changes resulted in improvement?
3. **ACHIEVABLE** – Is this doable in the time you have? Are you attempting too much? Could you do more?
4. **REALISTIC** – Do you have the resources needed (people, time, support?)
5. **TIMELY** – Do you identify the timeline for the project – when will you accomplish each part?

Opioid Education Strategy

Stephen Knaus, MD

St. Vincent Internal Medicine Residency in Indianapolis holds a three-day clinic boot camp during new intern orientation during the last week of June. One half day of that clinic boot camp is devoted to a workshop on prescribing of controlled substances with a focus on opioids. The workshop includes:

- 30-40 minute didactic from Clinic Director/APD on evidence-based use of opioids in chronic non-cancer pain (review of the literature)
- Review of Clinic Controlled Substances Policy
- Review of State Laws surrounding opioid prescribing
- Proper EMR documentation of chronic pain visits
 - Learn to use a macro in EMR to prompt proper documentation
- Review of the Clinic's Controlled Substances Treatment Agreement/Contract
- Review of the DEA Drug Schedules (Schedules I-V) and implications for prescribing
- How to order and interpret Urine Drug Testing
- Review of recommended tools for risk assessment including COMM, PHQ-2/9, SOAPP-R, Opioid Risk Tool
 - Practice finding the tools in the EMR
- Set up access to INSPECT pharmacy database

We do not authorize our new interns to prescribe controlled substances in the continuity clinic during the first six months of intern year (the faculty staffing the case with resident prescribes). Interns are provided a set of articles to read and then required to complete a 20 question quiz on an electronic platform (Quizzegg) prior to being authorized to prescribe.

Establishing a Meaningful Opioid Use Disorder Curriculum within Your Residency Program

*Rani Nandiwada, MD, MS, Anthony Accurso, MD, Ryan Graddy, MD,
Stephen Holt, MD, & Marc Shalaby, MD*

Background

Opioid use disorder (OUD) and other substance use disorders are major contributors to adult morbidity and mortality in the United States. The expansion of access to life-saving treatment for OUD, particularly buprenorphine, is a crucial part of reducing the health burden of this disease. The use of buprenorphine for office-based treatment for OUD in primary care settings has been approved in the United States since the early 2000s following an eight-hour physician training to obtain a buprenorphine waiver, and has been shown to be highly effective with or without adjunctive behavioral interventions. Preparing the next generation of physicians to treat patients with OUD is an important responsibility for medical educators. Providing residents with clinical experiences and curricula in addiction medicine gives them an opportunity to work with patients with OUD and other substance use disorders (SUDs) in a meaningful way in the outpatient setting, learning and directly applying skills. This also affords residents a chance to see patients with SUDs in varying stages of disease including recovery, hopefully avoiding the cynicism that can accompany clinical encounters with patients admitted to the hospital with sequelae of uncontrolled or untreated SUDs. An extensive literature review of models for resident training in OUD shows that many programs integrate a combination of didactics, role play, standardized patients, OSCEs, and interactive workshops, but only infrequently include direct patient contact. Creating venues in which trainees can gain clinical experience prescribing buprenorphine and working with patients with OUD will allow them to hone the skills necessary to treat this disease. As more medical schools and residencies offer waiver training for learners to prescribe buprenorphine and naloxone training, creating venues for learners to continue to develop these skills with direct patient care becomes vital.

Introduction

This document is meant to serve as a reference for those interested in building an OUD curriculum within their residency (or medical student) program. Establishing a robust educational curriculum around OUD depends on a number of factors including programmatic and institutional priorities, local resources and expertise, availability of trained faculty, and clinical environments where learners can participate in “experiential learning.” While some programs are lucky enough to have all of the necessary “pieces” to build a fully functioning, high-level program, most may/must choose to build smaller educational programs that have the opportunity to grow later as priorities and resources allow.

It is important to note that not all of the curricular components discussed in this document are necessary to have a meaningful OUD curriculum. It is our intention that educators will take bits and pieces of the document to tailor their curricula to meet the needs of their individual programs. We start off with the most critical components to any curriculum (learning objectives and conference curriculum) and then provide guidance on building variable levels of experiential learning.

Learning Objectives

- Identify patients who have OUD and learn local resources for addiction treatment
- Gain familiarity with the use of buprenorphine for OUD
- Understand and use de-stigmatizing language when discussing SUD-related topics
- Understand common medications used to treat patients with SUDs
- Effectively use behavioral strategies to work with patients with SUDs, such as motivational interviewing techniques

- Gain the necessary skills and experience to be comfortable and competent when treating patients with OUD with buprenorphine in a primary care setting

Conference Curriculum

Depending on the availability of resources at your institution, exposure to content provided by faculty and local experts can go a long way towards covering core topics in addiction medicine. A robust conference curriculum provides a means to meet the educational needs of a large number of learners and can be a shared resource among the many residencies and fellowships within your institution. Given its wide importance in undergraduate and graduate medical education, building of this conference series may align well with the educational priorities of most academic medical centers (both community- and university-based). This alignment may help garner resources (or may at least provide an opportunity to share the expense) for the construction of the conference curriculum.

Core Topics

- Screening, Brief Intervention and Referral to Treatment (SBIRT)
- DSM diagnosis of substance use disorders, intoxication, withdrawal, and tolerance
- Medications for Addiction Treatment (MAT) – methadone, buprenorphine-naloxone and extended release naltrexone
- Patient-centered communication skills and person-first language
- Analysis and interpretation of urine toxicology data
- Harm reduction strategies, including naloxone teaching
- Interviews with patients with substance use disorder

In addition, many programs offer (or require) their trainees to complete the buprenorphine waiver training necessary to prescribe this medication after graduation and licensure. This previously had been a big hurdle because in-person, eight-hour sessions were time-consuming for faculty and learners. In addition, such sessions, even with national grant funding, were a limited resource with limited numbers of educators to lead the sessions. In response to this, regulations have softened to allow for free online training (<https://learning.pcscnow.org/p/onlinematwaiver>). This online content can augment, complement, or replace in-person training sessions.

Experiential Learning - Starting an Addiction Medicine Clinical Experience

The idea of creating a new clinical experience can be intimidating especially when incorporating new modalities of care such as MAT. However, even identifying just one or two local champions or prescribers of buprenorphine can significantly increase training opportunities for your residents. Three different models of exposure depending on local resources and leadership are provided. Generally speaking, as treating OUD is direct patient care, there is minimal additional costs incurred for faculty time to directly care for these patients or to precept residents. From an administrative standpoint, however, it is helpful (but not completely necessary) to have some salary support for faculty to develop and maintain the operation of this clinical experience, at least in the beginning.

Model 1. Shadowing Experiences

Shadowing experiences require very little resources and are an excellent way to expose residents to the clinical nuances of caring for patients with substance use disorders. All that is required are faculty interested in hosting learners, signed program letters of agreement, and administrative support to schedule learners in the various clinical venues.

These faculty could be institutional employees or local prescribers in the community. There may be potential faculty in community health programs or affiliated addiction treatment programs. In addition, there may be mental health and/or other addiction professionals willing to host learners. It is important to note that these prescribers/providers need not be formally trained in addiction medicine, or even trained in internal medicine. Many community prescribers are trained in family medicine and psychiatry. There are also many nurse practitioner prescribers as well. And because all of these prescribers/potential faculty are providing a unique clinical experience for residents, there are no conflicts with residency regulations stemming from a lack of board certification in internal medicine.

Model 2. Incorporating Patients with OUD into Resident Panels

As the care of patients with OUD moves from formal addiction providers into the primary care realm, it would follow that many primary care physicians will be charged with caring for a number of patients with OUD. As such, we need to train the next generation of physicians to be comfortable caring for these patients. And as this drift towards primary care continues, it would make sense that in time, resident primary care clinics will too be charged with integrating these patients into their resident panels. In fact, some might say this integration is necessary to provide residents with consistent exposure to OUD. This integration is possible, but only if enough of the precepting faculty is waiver-trained to ensure that when these patients are seen by residents, they can receive MAT. While a resident clinic could preferentially schedule patients with OUD during certain sessions that would have waiver-trained faculty available, this could become burdensome when there are only a few waiver-trained faculty. It is far easier with a full host of waiver-trained faculty in the clinic. Waiver-training for all clinic faculty could serve as relatively inexpensive, convenient and incredibly effective means to fulfill residency requirements for faculty development within your department. As per the DEA once you have completed waiver training you are qualified to prescribe buprenorphine. In our opinion having a resident follow even one to two patients longitudinal or even two half-days of a dedicated buprenorphine clinic would give them enough exposure to feel confident in prescribing this medication. Buprenorphine-naloxone is actually much safer than many other medications we prescribe on a regular basis the more complex side is developing a patient relationship focused on harm reduction and understanding when a higher level of care is needed. The waiver training and home induction process is sufficient to be competent in induction protocols. We recommend for any new provider to have a network of peers or mentors who are more experienced which can be found through resources such as <https://pcssnow.org/mentoring/>, the UCSF Warmline <http://nccc.ucsf.edu/wp-content/uploads/2016/12/CCC-Substance-Use-Warmline-Flier-EST-7.25.16.pdf>, and through developing your own peer network locally.

Model 3. Creating an Addiction or Buprenorphine Clinic

This is the most resource intensive model, but also has the most robust outcomes in achieving trainee competence with prescribing buprenorphine. Having at least a half-day clinic ensures a high exposure rate to patients who are on buprenorphine and so the deliberate practice is more intensive than individual patients being scheduled. The downside to this model is there may be less patient continuity for the resident to see a patient over an extended period of time includes a description of four academic programs and the breakdown of clinical exposure to patients with OUD. In addition, providing opportunities for increased exposure for interested residents at a second clinical site, or nominating a resident or chief resident champion, can further engage trainees to prescribe after graduation and increase competency (1).

10 Steps to Starting Your Own Buprenorphine Clinic

Build Your Human Network

Perform a local needs assessment to identify collaborators in program leadership, staff, and among practice leadership. Additionally, identify colleagues who are already treating OUD or are interested in taking on this clinical and teaching responsibility. Stakeholder identification and understanding local lab capabilities, access to mental health, referrals to higher levels of care, and existing institutional resources are key. Referral sources can be broad and range from the emergency room to inpatient admission to internal referrals within a practice. Engaging social work teams and emergency room/inpatient providers can help transition these patients safely to the outpatient setting, especially if they have already been inducted.

Become a Faculty Champion

As a faculty champion, it is important to be comfortable in your own clinical practice first. If you have not prescribed buprenorphine before, we recommend starting with a small, very carefully select group of patients that you can incorporate into your own schedule. If there are other providers prescribing locally, then spending some time shadowing to understand their workflows can be very helpful. Similarly, spending a day shadowing at another residency practice that already prescribes buprenorphine can be equally fruitful. Identifying a liaison in your hospital lab who can help with interpretation of complex urines is also a helpful resource when possible (2). For many of us, understanding how to use a new medication is the first hurdle, however once given, it becomes clear that this is as simple as prescribing any other medication.

Choose When to Do It: Adjusting Your Schedule

With buprenorphine, there is a need for flexibility in appointment times because of urgent patient needs and changes in frequency of monitoring due to relapse. Having the ability to move someone who is stable and getting seen every four weeks to weekly when they need more support needs to be built into the scheduling system. When starting prescribing as a faculty champion, just blocking a few patient slots a week allows the necessary flexibility to start taking on a few patients of your own first. With the resident clinic half day model, there are generally more available slots to be able to move patients as needed. This could also be done through having a slot reserved in these particular resident schedules throughout the week. With the half day model, it is important to think about preceptor continuity and we recommend having the same preceptors on for at least four to six weeks to help with patient continuity.

What Services Will You Provide?

Within the realm of OUD treatment, buprenorphine and injectable naltrexone (Vivitrol) are the only two FDA-approved treatments for primary care-based management. Office-based injection of naltrexone requires coordination with your pharmacy support team, and prior authorization issues will need to be addressed prior to the visit. Additionally, patients with OUD may have other coinciding substance use disorders including cocaine, benzodiazepine, alcohol, and tobacco. Deciding which of these other diagnoses will need to be prioritized in a practice treating OUD is important. Notably, the absence of on-site specialty treatment for other SUDs is not a contraindication to office-based OUD treatment (3). There are also high rates of underlying mental health diagnoses in patients with OUD. We have found it necessary to address many of the underlying mental health issues such as anxiety and depression either internally, or when complex, to refer elsewhere as an important part of the comprehensive care for their OUD. Many insurances require that you have the ability to refer out or are actively treating their mental health issues as part of a comprehensive care plan for their OUD. As treating anxiety, depression, and smoking cessation are already core primary care practices this is an additional area for deliberate practice for trainees.

Define Your Office Workflow

Collaborating with your office staff to get everyone on-boarded to the process of a buprenorphine visit is the next step. Speaking with your internal staff to streamline the prior-authorization process for buprenorphine is helpful, and many insurances are doing away with the prior authorization making this even easier. The

treatment team will also need to make a decision regarding home induction versus office induction as their default approach. A growing body of evidence supports home induction.

Create Best Practices, Templates & Smartsets

Standardized order sets and templates help to ensure high quality patient care in any model of OUD treatment (**Appendix A and B**). If you would like more examples, please email deepa.nandiwada@pennmedicine.upenn.edu and we can provide you a best practice guide of templates that have built-in documentation standards and example order sets for the electronic health record.

Create Continuity of Care

As this is a complex and continually evolving patient population, having a way to ensure safe hand-offs and continuity of care is imperative. Lists to track patients and their follow-up appointments, a no-show protocol, and sign-outs are all effective tools to ensure patients are getting high quality care.

Build a Supplemental Curriculum

An OUD curriculum can vary from the free online waiver training alone to a more comprehensive addiction medicine curriculum that covers the full spectrum of addiction disorders and their treatments, with a range of didactics, workshops, and clinical opportunities (4). Suggestions for core topics are listed.

Troubleshoot Challenges

Once you have started your clinic, your patient panel will grow in size. Attending schedules need to be blocked far enough in advance to precept or coordination of appointments with a waived preceptor needs to be assessed prior to scheduling. Other questions to consider are when to defer accepting new patients. Many programs are working to streamline the transition of these patients from the ED or inpatient to outpatient settings as well. Peer mentors can be very helpful in discussing new questions that arise once you have started prescribing.

Evaluate Your Clinic

This is a key aspect to ensure that residents are having a high-quality experience and taking home the skills they need to incorporate buprenorphine into their clinical practice as they graduate.

Conclusion

The longitudinal care of treatment-seeking patients with OUD in the outpatient setting is enormously rewarding. Having residents work with this population during training is an effective way to decrease barriers to prescribing, as it quickly becomes clear that MAT is similar to treating other chronic disease states such as diabetes or heart failure. We have noted that even a few days of high intensity exposure goes a long way to overcome many of the barriers to prescribing MAT and clarifies that this is similar to treating other chronic disease states such as diabetes or heart failure.

References

1. Holt S, Segar N, Cavallo D, Tetrault J. The Addiction Recovery Clinic: A novel, primary care-based approach to teaching Addiction Medicine. *Academic Medicine*, 2017; 92:680-683.
2. Donroe JH, Holt SR, O'Connor PG, Sukumar N, Tetrault JM. Interpreting quantitative urine buprenorphine and norbuprenorphine levels in office-based clinical practice. *Drug and Alcohol Dependence*, 2017. 180:46-51.
3. Martin SA, Chiodo LM, Bosse JD, Wilson A. The next state of buprenorphine care for opioid use disorder. *Ann Int Med* 2018;169(9):628-36.

4. Graddy R, Accurso AJ, Nandiwada DR, Shalaby M, Holt SR. Systematic review of opioid addiction curricula during residency training. *Current Addiction Reports*; <https://doi.org/10.1007/s40429-019-00271-1>.

Table 1: Comparison of clinic models among 4 academic residency programs

		NYU Internal Medicine Residency Program in Brooklyn	University of Pennsylvania Primary Care Program: START Clinic	Yale Primary Care Internal Medicine Program: ARC Clinic	Johns Hopkins Bayview Medical Center - Comprehensive Care Practice	
Type of Clinic		Subspecialty clinic	Half Day Clinic	Half Day clinic	SUD and HIV Rotation	2-year Continuity Clinic
Clinical Experience		4 half days over two weeks	2 to 3 half days over a month	1 half day per week for 1 month	14 half day sessions over 2 weeks	3 half days per week for 4 months
Training Year		PGY- 2 or 3	PGY- 2 and 3	All PGY-years	PGY- 2 or 3	PGY- 2 and 3
Scheduled Hours During Residency		12	20	48	42	288

Resources

- [Zoorob](#) R, Kowalchuk A, Mejia de grubb M. Buprenorphine Therapy for Opioid Use Disorder. *Am Fam Physician*. 2018;97(5):313-320.
- Boston Medical Center: Words Matter Pledge: https://www.bmc.org/sites/default/files/Patient_Care/Specialty_Care/Addiction-Medicine/LANDING/files/Words-Matter-Pledge.pdf
- Person First Language: <https://www.whitehouse.gov/sites/whitehouse.gov/files/images/Memo%20-%20Changing%20Federal%20Terminology%20Regrading%20Substance%20Use%20and%20Substance%20Use%20Disorders.pdf>
- Waiver Training Sites: <https://elearning.asam.org/buprenorphine-waiver-course>
- Free online waiver training: <https://learning.pcassnow.org/p/onlineatwaiver>
- Buprenorphine-Naloxone prescribing resources: <https://www.samhsa.gov/medication-assisted-treatment/training-materials-resources/buprenorphine-physician-training>
- <https://pcassnow.org/medication-assisted-treatment/>
- UCSF Warmline – Direct line for prescribing questions 10-6 M-F <http://nccc.ucsf.edu/wp-content/uploads/2016/12/CCC-Substance-Use-Warmline-Flier-EST-7.25.16.pdf>
- Free SBIRT Training: <https://www.integration.samhsa.gov/clinical-practice/sbirt/training-other-resources>
- For more details or a phone consult on starting your own addiction clinic or for additional templates and slides, please email Deepa.nandiwada@uphs.upenn.edu

Appendix A. Note Template: Intake Visit

@NAME@ presents for buprenorphine/naloxone intake visit.

Review of substance use history (first use, substances used, any illicit purchases): ***

Last substance used: ***

If last substance used was non-opiate, last opiate used (type, dose, route, withdrawal symptoms): ***

Mental health history: ***

Current counseling/behavior health provider: ***

Pt has Opiate Use Disorder by the following DSM-5 criteria: *Keep those that apply*

- Opioids taken in larger amounts or over a longer period than intended
- Persistent desire to cut down
- A great deal of time is spent to obtain/use/recover from the opioid
- Cravings to use opioids
- Use resulting in a failure to fulfill major role obligations
- Continued opioid use despite persistent social or interpersonal problems
- Important activities are given up or reduced because of opioid use
- Recurrent opioid use in situations in which it is physically hazardous.
- Use despite knowledge health problems caused by opiates
- Tolerance
- Withdrawal

@HISTORY@

@MED@

Physical Exam

@VSRANGES@

Clinical Opiate Withdrawal Scale: Highlight Applicable COWS scoring (you can choose to make this a drop down if the patient is coming for an in office induction in the note template)

- Resting HR:
 - 0 for < 80
 - 1 for 81-100
 - 2 for 101-210
 - 4 for HR > 120
- Sweating:
 - 0 for no chills/flushing
 - 1 for subjective chills/flushing
 - 3 for beads of sweat on brow/face
 - 4 for sweat streaming off face
- Restlessness:
 - 0 able to sit still
 - 1 subjective difficulty sitting still

- 3 for frequent shifting or extraneous movement
 - 5 for unable to sit still for more than a few second
- Pupil size:
 - 0 pinpoint or normal
 - 1 for possibly larger than normal
 - 2 for moderately dilated
 - 5 for only iris rim visible
- Bone/joint pain:
 - 0 not present
 - 1 mild diffuse discomfort
 - 2 severe diffuse aching
 - 4 objectively rubbing joints/muscles and obviously in pain
- Runny nose/tearing:
 - 0 not present
 - 1 stuffy nose/moist eyes
 - 2 nose running/tearing
 - 4 nose constantly running or tears streaming down cheeks
- GI upset:
 - 0 no GI symptoms
 - 1 stomach cramps
 - 2 nausea or loose stool
 - 3 vomiting of diarrhea
 - 5 multiple episodes of vomiting or diarrhea
- Tremor observation of outstretched hands
 - 0 no tremor
 - 1 tremor can be felt but not observed
 - 2 slight tremor observable
 - 4 gross tremor or muscle twitching
- Yawning
 - 0 no yawning
 - 1 yawning once or twice during assessment
 - 2 yawning three or more times during assessment
 - 4 yawning several times per minute
- Anxiety or irritability
 - 0 none
 - 1 patient reports increasing irritability or anxiousness
 - 2 patient obviously irritable/anxious
 - 4 patient so irritable/anxious that assessment is difficult
- Gooseflesh
 - 0 skin is smooth
 - 3 piloerection of skin can be felt or seen
 - 5 prominent piloerection

TOTAL: ____

*** (If inducing in office, recommend delaying buprenorphine until COWS scale > 12 to avoid precipitated withdrawal)

Assessment and plan:

Based on a review of the patient's medical history including substance use and mental health factors, and physical exam, @NAME@ is a suitable candidate for MAT with buprenorphine/naloxone. UDS and confirmation ordered

I have discussed HIV and Hep C screening with this patient. I have reviewed and prescribed naloxone use with this patient in case of an emergency.

I have counseled the patient on the usual format for MAT in our clinic, provided them with an MAT welcome letter, and they have agreed to our agreement as signed in the chart.

Induction in clinic:

Buprenorphine/naloxone 4 mg once, followed by 1-2 hours of observation in clinic. I have instructed the patient how to appropriately take this medication, including placing under tongue with head relaxed for 10 min and allowing to dissolve without chewing or swallowing tab, and nothing to eat or drink for 15 subsequent minutes.

Reassessment 1 hour post-initial dose: pt still having withdrawal symptoms, gave additional 4 mg.

Reassessment 3 hours post-initial dose: pt still having withdrawal symptoms, gave additional 4 mg. Total daily dose after induction is ***

Plan to prescribe ***

Home Induction:

I have instructed the patient how to appropriately take this medication, including placing under tongue with head relaxed for 10 min and allowing to dissolve without chewing or swallowing tab, and nothing to eat or drink for 15 subsequent minutes. They have been told not to start taking the medication until they are having significant signs of withdrawal and I have explained the concept of precipitated withdrawal to the patient. *Please print the instructions listed within the smart set to be printed with the after-visit summary*

Intervisit Care

The care coordinator will call patient the following morning to assess symptom burden, and determine need for additional dose titration and contact me with any questions. We discussed this medication must be kept in a safe place and away from children.

Plan to see the patient back in 1 week in clinic, with option for sooner appointment based on patient and provider preference.

Patient was encouraged to call the office and speak with care coordinator about any urgent concerns.

Appendix B. Note Template: Maintenance Appointment

@NAME@ presents for buprenorphine/naloxone follow up visit. I have reviewed the prior induction visit, follow up visits, and telephone encounters relevant to opiate use disorder (OUD) treatment.

Current daily dose: ***

Induction Start Date: ***

Current follow up interval, in weeks: ***

The patient has been adherent to the buprenorphine for OUD contract: Y/N
Challenges during their treatment plan and triggers for relapse:

UDS History

HPI:

Patient adherent to suboxone yes/no

Ongoing opiate use yes/no

Other drug use yes/no

Engaged in behavioral health yes/no

Exam:

@VSRANGES@

Assessment/Plan:

Medication management –

patient is(***/is not)doing well on current daily dose, which is continued today at ***. UUDS ordered and PA PDMP has been checked and the patient is a candidate for MAT.

Follow up interval: every *** weeks

This patient has ***/has not required *** recommitment contract(s) while using buprenorphine in this practice.

Chronic Pain Management Curriculum

Patricia Ng, MD & Rachel Wong, MD

Educational Goals and Objectives

Through this curriculum, residents will be able to:

- Define chronic pain
- Describe the physical and psychological factors that may contribute to chronic pain
- Perform a comprehensive pain assessment (Ex. PEG score)
- Describe pharmacological and non-pharmacological therapies available for chronic pain
- Identify when opioid analgesics are indicated
- Screen and risk stratify patients for opioid misuse (Ex. Opioid Risk Tool)
- Describe the risks and benefits of opiate use
- Screen and identify opiate dependence, tolerance, and misuse
- Understand the elements of a chronic pain policy and initiate a pain patient agreement
- Monitor and titrate chronic opiate therapy, including calculating opioid dosages to convert medications
- Demonstrate how to use the state's prescription drug monitoring program (PDMP)
- Educate patients on opiate overdose prevention and treatment (ex. Prescribing naloxone kit)
- Interpret urine toxicology tests and manage an abnormal urine screen
- Identify local referral networks for chronic pain management, which may include Pain Management specialists, Addiction Medicine specialists, Orthopedics, Physical Therapy, Mental Health Providers, etc.
- Identify local resources for treating opiate misuse, including Narcotics Anonymous, mental health centers, addiction medicine specialists, substance abuse detox/rehab programs, etc.

Teaching Methods

- Didactic learning
- Self-learning online modules
- Specialty clinic rotation
 - Pain management
 - Addiction medicine / suboxone or methadone clinics
 - Substance abuse detox/rehab
 - Physical therapy
 - Orthopedics
 - Chiropractors
 - Acupuncture
 - Osteopathic manipulative treatment clinic
- Community based organization learning
 - Narcotics anonymous meeting
 - Chronic pain support groups

Didactic Resources

- CDC Guidelines for Prescribing Opioids for Chronic Pain: <https://www.cdc.gov/drugoverdose/prescribing/guideline.html>
- CDC checklist for prescribing opiates: https://www.cdc.gov/drugoverdose/pdf/pdo_checklist-a.pdf
- Substance Abuse and Mental Health Services Administration (SAMHSA): <https://www.samhsa.gov/>

- SCOPE of Pain: Safe and Competent Opioid Prescribing Education: <https://www.scopeofpain.com/>
Free online modules created by Boston University to educate providers on safe opiate prescribing. Website includes a trainer's toolkit and videos on performing pain assessments and counseling patients on aberrant behavior.
- CAPC: Center to Advance Palliative Care: <https://www.capc.org/>
Free online case-based modules to improve palliative care and pain management skills for providers. There are several clinical skills sections, including 14 modules on pain management.
- Boston University's Immersion Training in Addiction Medicine: <http://www.bumc.bu.edu/care/education-and-training-programs/crit/>
This is a 4 day immersion training for incoming chief residents, their faculty mentors, and junior faculty on state-of-the-art methods to diagnose, manage, and teach about addiction medicine.
- Opiate Risk Tool (ORT): <https://www.drugabuse.gov/sites/default/files/files/OpioidRiskTool.pdf>
- American Chronic Pain Association: <https://theacpa.org/>
- Prescribe to Prevent: Prescribe Naloxone, Save a Life: <http://prescribetoprevent.org/>
- Narcotics Anonymous: <https://www.na.org/>

Program Checklist

- Learn your state laws and requirements for opiate prescribing and prescription drug monitoring
- Identify pain management referral resources available in your area (Ex. Pain management, addiction medicine, suboxone/methadone prescribers, palliative care providers, substance abuse rehab/detox centers, acupuncture, physical therapy, etc.)
- Create a chronic opiate use policy for your office
- Create a chronic opiate use patient agreement
- Create a chronic opiate use clinic note template
- Develop a clinic workflow for managing patients with chronic opiate use
 - How often do patients need to follow up?
 - Who manages refills?
 - How often should there be urine tox screen?

Sample Curriculum: Stony Brook Internal Medicine Residency Program: 4 + 1 Schedule

Didactics

- Clinic orientation
- Pre-clinic conferences
- CAPC modules on pain management
- SCOPE of Pain online modules
- Workshops on safe opiate prescribing, screening and treatments for substance abuse led by pain management and addiction medicine specialists

Rotations

- One week at Stony Brook Pain Management Center (includes participating in injection clinic and following a pain psychiatrist)
- Two weeks at a local mental health clinic and VA Psychiatry
- One week with a community primary care physician who is a suboxone prescriber and also manages a local hospital substance abuse detox unit
- Two weeks of musculoskeletal block where residents rotate with orthopedics, physical therapy and occupational therapy

- One week palliative care elective

Continuity Clinic

- Patients who are prescribed chronic controlled substances are on a five-week follow-up (if high risk for substance abuse) or a 15-week follow-up schedule
- Residents use a Pain Ambulatory Assessment (PAA) Clinic Template for each visit
- Medication refills received between follow-up visits are reviewed by a designated clinic nurse and forwarded to an assigned clinic attending for review

Templates are available in Appendices A-E.

- Chronic Non-Cancer Pain Treated with Opiates Policy
- Controlled Substance Patient Letter
- Controlled Substance Treatment Agreement
- Pain Ambulatory Assessment (PAA) Clinic Visit Template
- Clinic Workflow for Patients on Chronic Opiates

Appendix A: Sample Policy—Chronic Non-Cancer Pain Treated with Opiates

Providers will adhere to New York State regulations and current Standards of Medical Care with respect to chronic pain evaluation and management. Providers will prescribe opioid medication, when necessary, for patients with chronic pain in a safe and effective manner.

Area: Outpatient practices of the Division of Geriatrics, General Internal Medicine and Hospital Medicine, Department of Medicine at SUNY Stony Brook

Guideline: CDC Guideline for Prescribing Opioids for Chronic Pain – US, 2016

Purposes:

Provide a framework for management of chronic pain in the primary care setting for adult patients (ages 18+). Provide guidelines regarding prescription and monitoring of controlled substances for long-term therapy.

Note: This policy does NOT apply to patients with chronic pain who are receiving active cancer treatment, palliative care or end-of-life care nor does it apply to patients with severe mental or physical incapacity whereby the person is unable to express himself/herself in a manner understood by others.

Chronic Pain Definition: Pain lasting >3 months or past the time of normal tissue healing.

Procedures:

Overview: The practice will follow the *CDC Guidelines for Prescribing Opioids for Chronic Pain – United States, 2016* (see attached CDC Recommendations and Checklist for prescribing opioids for chronic Pain.) The practice will train patient care teams consisting of patient care coordinators, clinical nursing assistants, nurses, nurse practitioners and doctors to support high-risk patients in safe self-management. The practice will strive to use non-opioid medication and other therapies such as physical therapy before prescribing opioid treatment. The practice will utilize “universal precautions” including pain agreements, urine drug testing and pill counts, when necessary, Opioid Risk Tool and refill and cross-coverage systems to assure patient safety.

Counseling: The patients and providers will establish personal health targets with regard to pain control, functional status, compliance, and weight, which will be recorded in the care plan.

Education: Staff will provide patients with educational materials and information on community and online resources resource to help them control their persistent pain.

OFFICE WORKFLOW

PRIMARY CARE PROVIDER (PCP) RESPONSIBILITIES

ASSESSMENT: At a minimum, patients on chronic opiate therapy will be assessed **initially** (preferably before long-term narcotics are prescribed) and **at least annually**. More frequent assessments may be needed based on risk of opioid abuse or overdose.

- a). Primary Care Providers will perform a **detailed history** (including onset, location, radiation, quality, duration, alleviating/exacerbating triggers and medication history) and **physical exam** to characterize the pain and to determine the most likely cause and mechanism of the pain (e.g., neuropathic, inflammatory, muscular, mechanical/compressive). Providers will also assess patients for psychiatric causes of pain (e.g., depression, anxiety or other comorbid psychiatric disorder) and assess **current functional status**.
- b). Providers will order any further testing necessary for evaluation of pain, place referrals to appropriate specialists, including pain management experts when indicated, and review diagnostic studies and consultation reports
- c). Providers will complete the Ambulatory **Opioid Risk Tool** available in the *ad hoc* section of the EMR. A score of 3 or lower indicates low risk for future opioid abuse, a score of 4-7 indicates moderate risk for opioid abuse and a score of 8 or higher indicates a high risk for opioid abuse.
- d). Providers will order **screening urine toxicology**. Patients will be asked to record the exact narcotic intake on the day of and 48-72 hours prior to toxicology testing.
- e). Providers will assess patient adherence to various aspects of treatment and screen patients for any substance abuse. “Red flags” will include certain patient behaviors such as seeking pain medications from multiple providers, requesting pain medications after hours, losing prescriptions, etc.

TREATMENT

- 1) Providers will treat patients with non-pharmacologic and non-opioid pharmacologic therapy and only consider opioids if the expected benefits for both pain and function outweigh the risks to the patient.
- 2) When opioids are used for **acute** pain, providers will prescribe the lowest effective dose of immediate-release opioids and prescribe no greater quantity than that needed for the expected duration of pain severe enough to require opioids. Providers will adhere to New York State law which only allows for **7 days** of opioid therapy for acute pain for the initial prescription. Providers may reorder pain medications after assessing the efficacy of the opioid analgesic in alleviating the acute pain versus the side effects of the drugs.
- 3) Before starting opioid therapy for chronic pain treatment, providers will document the lack of effectiveness of more conservative therapies and establish, in conjunction with the patient, goals of care, including a realistic goal for pain control and function and anticipated duration of therapy. Providers will discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy. Patients must sign a **Pain Agreement** to document these discussions and their agreement with the plan of care.
- 4) When starting opioid therapy for chronic pain, providers will prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids and initiate step-wise treatment starting with the lowest effective dosage. Providers will utilize “**Morphine Equivalent**” analgesic charts to select appropriate starting doses and frequencies of the selected narcotic drug and clearly delineate medication directions and the quantity prescribed on the prescription form. **With rare exceptions, providers will only prescribe narcotic analgesics during business hours** and patients will be informed of this policy.

- 5) Providers will evaluate benefits and harms of narcotic analgesics with patients at each visit but especially within the first few weeks of starting therapy or of escalating dose. Providers will denote in the care plan the frequency of visits needed for pain management. In general, patients on chronic narcotic analgesics will be seen at least every three months but those who are deemed high risk for substance abuse or drug overdose will be seen more frequently – e.g., every 4-5 weeks and those deemed very low risk for whom it is a hardship to come to the office may be seen less frequently at the discretion of the provider.
- 6) Providers will incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥ 50 ME/day), or concurrent benzodiazepine use, are present. Fentanyl patch will only be prescribed for patients with moderate to severe pain who have already been receiving opioid therapy for **two** weeks or more and who are on a narcotic daily dose equivalent to 60 mg or more of morphine sulfate. Providers will warn patients and families of the risk of hypoventilation occurring with high dose long-acting narcotics.
- 7) Providers will review PDMP (I-Stop) data when starting or renewing opioid therapy for chronic pain. When prescribing opioids for chronic pain, providers will use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs. For low risk patients, providers may order a 30 day supply of medication with two renewals by labeling the prescription “Schedule D”.
- 8) Providers will offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.
- 9) Providers will designate which patients require pre-visit planning for Pain Management the week prior to the anticipated visit.

DOCUMENTATION:

A **Pain Ambulatory Assessment (PAA) template** is recommended for documentation purposes, as it includes all necessary elements (see Figure 1) although it is not required so long as the evaluation is documented, the nature and cause of the pain are specified and the plan of care is carefully delineated in the note. These visits for chronic opioid treatment will be labeled in the EMR as “**Pain Ambulatory Assessment**” (PAA) notes.

At a minimum, a plan for chronic opiate prescription and pain management should be documented at each visit. This plan should include explicit treatment goals as well as directions on whether to continue, change or taper the current pain medication regimen, whether specialty follow up is required, and the timeline for frequency of toxicology screening and future visits. A sample Pain Assessment and Plan template is included in Figure 2.

NURSING, PCA AND CLERICAL STAFF RESPONSIBILITIES

- a) Patients who require frequent renewal of controlled substances will be scheduled for a **Controlled Substance Medication Renewal Visit** (20 minute allocation) every 4-5 weeks that is separate from regular continuity or urgent care visits.

- b) **Pre-Visit planning** - Prior to the scheduled pain visit or established follow up visit in which pain and opioid therapy will be reviewed, pre-visit planners will record for the primary care provider the following information: type of pain, controlled substance dose and frequency, date of last Pain Ambulatory Assessment note, last Ambulatory Opioid Risk Score and date, date of last urine drug testing and results, date of last refill of controlled substance, a copy of the I-Stop recent drug prescription profile, the Current Pain Management Plan, including frequency of visits, and whether or not the patient is due for a urine toxicology screen.
- c) **Medication Refill Requests** will be triaged through Nursing. Patients will be advised to call 3-5 business days before they will run out of medication. The triage nurse will gather the information listed in section b above and will send this information to the PCP or covering provider and will also denote the date of the next follow up visit in the message. Medication refill frequency will be determined by the Primary Care Provider and denoted in the EMR. Medications will be refilled for 30 days but for patients with chronic pain the PCP or covering provider may designate “Schedule D” on the prescription and order 2 refills for a total supply of 90 days if the patient is deemed to be “low risk” for substance abuse or overdose.

PERSONAL CARE ASSISTANT (PCA) RESPONSIBILITIES

- a) At every visit, the Personal Care Assistant (PCA) will inquire about pain and will ask the patient to rate their pain and its impact on their function and quality of life using the PEG Scale (see attached).
- b) The PCA will ask the patients which medications require refill or prescription. The PCA will report the level of pain and medications for renewal to the PCP.
- c) If urine toxicology is required, the PCA will fill out the toxicology laboratory forms for the controlled substances specified by the PCP and send the urine sample to the lab. Currently such requests will go to the **Aegis** laboratory.

QUALITY IMPROVEMENT

The Quality Improvement Committee will perform random chart audits of patients on chronic opioid therapy to determine whether the cause and severity of pain are documented using standardized tool and whether or not a follow up plan is documented when pain is present.

ATTACHMENTS

Summary of CDC Guideline

Information for Patients

ORT Tool

PEG Score

Pain Agreement

Appendix B: Controlled Substance Patient Letter Template

Dear Patient,

You are receiving this letter because you are a patient in our Resident Clinic at _____ and receive prescriptions for a controlled substance on a chronic basis. We are writing to inform you of a new policy that we are instituting to improve the continuity and quality of your care.

Our previous policy required a monthly office visit for prescriptions of controlled substances, but to streamline this process, we will now be able to renew these prescriptions directly to your pharmacy with electronic prescriptions.

We will still require an office visit **every ____ weeks** and continued adherence to our clinic's opioid prescribing policy and procedures. A copy of this policy may be obtained at any time at your next office visit.

Instructions for medication renewal prior to office visit:

- Our practice may only prescribe a 4 week supply of controlled substances at one time.
- At least **3-5 days business days** prior to running out of medication, request medication renewal via **telephone or patient portal email** in order to avoid lapses in your prescriptions.
- Please contact our office at _____ and leave a message with our nurse _____ requesting renewal of your medication for pain or anxiety medications only.
- Prescriptions will be filled from **9am to 5pm on Monday through Friday**.

We hope this transition will improve your continued care. As always, please feel free to contact our office with any questions or concerns you may have with our new policy.

Sincerely,

[Insert Resident Clinic]

Appendix C: Controlled Substance Treatment Agreement Template

Dr. _____ has explained the risks and benefits of the controlled substance (medications may include opiates, benzodiazepines, sedatives, muscle relaxants and stimulants) and I give my consent to treatment with controlled substances in my medical care.

I, _____, understand that I must comply with the following rules or I will not be given a prescription for the controlled substance.

I agree to use only one pharmacy for filling prescriptions for any controlled substance.

Pharmacy _____ Telephone _____

GOALS: The goals of chronic pain management are

- 1) To improve your ability to function in your daily life
- 2) To lower your pain

EFFICACY: Some people who take opiates will get relief from their chronic pain. I understand that my provider may decide to stop the opioid if after increasing it adequately, my pain and function have not responded positively.

SIDE EFFECTS: I understand these medications have significant side effects and potential adverse effects, which include but are not limited to: impaired ability to concentrate, constipation, dizziness, drowsiness, itching, nausea or GI upset, difficulty urinating, skin rashes, trouble breathing, mental slowing and loss of coordination, sexual dysfunction.

DEPENDENCE: Taking opioids regularly for a long period of time usually causes physical dependence which means that your body adapts to the medication and experiences withdrawal if the medication is stopped or lowered too quickly. Symptoms can include runny nose, difficulty sleeping, agitation, abdominal pain and severe discomfort.

ADDICTION: Addiction can occur in a small amount of people who take daily opioids, and is characterized by behaviors such as loss of control of drug use, compulsive use and craving, and continued use despite harm or risk to the person.

RISK OF OVERDOSE: There is potential for overdose, which could cause you to stop breathing with risk of death if you take too much opiate medication, or if it is used in combination with benzodiazepines (eg. Xanax, Valium), hypnotics (eg. Ambien, Lunesta) or alcohol.

I agree to take my medications exactly as prescribed by my doctor.

I will abstain from drinking alcohol or using any recreational drugs.

I will not operate heavy machinery, or service in any capacity related to public safety.

I am aware medications may impair my ability to drive and I should use caution or designated driver particularly immediately after dose and when starting new medication.

I agree to meet regularly, as recommended by my practitioner to monitor ongoing effectiveness of therapy and renewal of medication.

I agree to see a specialist in the management of these medications if it becomes necessary.

I agree to random laboratory drug screens or other diagnostic tests when ordered by physician.

I will not share, sell or trade my medications with anyone.

I will not attempt to obtain any controlled medications, including opioid pain medicines, controlled stimulants or antianxiety medicines from any other physicians.

I will safeguard my pain medicine from loss or theft. I understand that lost or stolen medicine will not be replaced.

I agree that refills of my prescriptions for pain medicine will be made only during regular office hours. No refills will be available during evenings or weekends.

I agree that if I escalate my dose of pain medication without consulting my practitioner, that this may indicate a problem in my ability to use the medication as prescribed and may necessitate termination of the use of the medication.

I will make every effort to participate in self-help activities to improve my overall conditioning and pain tolerance (eg. Physical therapy, swimming, yoga, Tai Chi, meditation, stress management relaxation or pain program).

Failure to comply with any part of this contract may necessitate termination of the use of the medication.

By signing this form, I authorize my provider's office to contact any and all groups and organizations involved with my care and involved in the investigation of medication and drug abuse. I give permission to my provider to discuss my care with past caregivers, all pharmacies and policing agencies. This also gives these caregivers and pharmacies permission to share with my provider information about my past treatments and care.

Patient Signature

Date

Witnessed

Date

Appendix D: Pain Ambulatory Assessment (PAA) Clinic Note Template

History of Present Illness:

Location ===

Duration ===

Radiation ===

Quality ===

Severity (1-10) ===

Exacerbating Factors ===

Alleviating Factors ===

PEG Score (0-10) ==

1) Date of last refill of controlled substance: ===

2) Prescription Monitoring Program (PMP) registry consistent: Reference # ===

3) Last intake of controlled substance (Date/Time): ===

4) Last urine drug testing (Date): ===

5) Pain contract documented in the chart (Date): ===

6) Prior established functional treatment goal:

Type of controlled substance: Opiates/Anxiolytics/Sedatives/Other ===

Opioid Risk Tool Score:

Concurrent use of benzodiazepines: yes/no

Prior pharmacologic treatment:

Prior non-pharmacologic interventions: Physical Therapy/steroid injections/trigger point injections/acupuncture/counseling

Relevant Imaging:

Symptoms: Controlled/Uncontrolled

Compliance: Taking medications as prescribed/Not taking medications as prescribed

Etiology of Pain: Musculoskeletal/Neuropathic/Inflammatory/Neoplasm/Trauma/Other

Functional Status: Fully functional/Functional Limitations with extended activities/Functional with Assistive Devices/Functional Limitation with ADLs

Red Flags: None/Persistently Increasing Pain/Fever/Confusion/Falls/Weight Loss

Side Effects: None/Constipation/Nausea/Vomiting/Itching/Sedation

High Risk: Failed urine drug screen in the past/Referred to Substance Abuse in the past/Hospitalized for overdose in the past/ORT score ≥8

Mental Health Disorders: None/Depression/Anxiety/Substance Abuse/Bipolar Disorder/PTSD/Schizophrenia/ADHD

Physical Exam:

Labs/Imaging:

Assessment/Plan:

Plan: Continue current regimen/Change medication regimen/Taper or discontinue controlled substance

Advised that medications may impair ability to drive or operating heavy machinery

Advised to avoid bed rest

Counseled and provided educational materials and resources

Follow up: Follow up in 5 weeks/ Follow up in 15 weeks

Specialty Follow up: None/Requires Pain Management/Requires Substance Abuse Program/Other

Recommended toxicology screen: Every 5 weeks/Biennial/Annual/Other===

Established functional treatment goal:

Appendix E. Sample Flow Diagram for Controlled Substance Management in Resident Clinic

