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CVD to CCEP Competency-Based Alternative Training Pathway FAQ

1. What is the CVD/CCEP Competency-Based Alternative Training Pathway pilot program?

The overarching goal of this pathway is to introduce a tailored, competency-based cardiovascular disease (CVD) curriculum to select trainees to allow early career focus in clinical cardiac electrophysiology (CCEP) during the third year of CVD training. This will result in completion of training in both specialties in 4 years (rather than 5 years as currently required). Participants in this pathway will be expected to meet milestones for both CVD and CCEP and thus be eligible for the American Board of Internal Medicine (ABIM) CVD and CCEP certification exams.

The objectives of this pathway are to:

- Develop a competency-based curriculum tailored to the trainee interested in board certification in both CVD and CCEP
- Permit early career focus in CCEP during the third year of CVD fellowship
- Provide an option to meet CVD and CCEP certification requirements in a four-year, rather than five-year, training period (waiver of CCEP certification requirements will be necessary)
- Develop a curriculum that encourages adaptive learning and teaching
- Increase diversity within CCEP training programs and workforce

2. What are the benefits of the Alternative Training Pathway?

Given current CVD workforce needs and interest in developing/testing competency-based assessment tools, there is now a unique opportunity to reassess CVD training and provide more efficient and innovative training models for general CVD fellowship and its subspecialties. Drivers for change include concerns that increased length of training within cardiology presents financial barriers to programs and institutions and may make cardiology subspecialties less attractive to underrepresented minorities, women, and individuals with a large school debt burden as well as international fellows on a limited visa. With the recent expansion of CCEP training from 1 to 2 years, there is an opportunity to provide an alternative training pathway for interested fellows, allowing for early career focus in CCEP during the third year of CVD training. This continued movement toward a true competency-based curriculum and training model could provide the following benefits:

- Enhanced transition between CVD and CCEP training
- A more efficient pathway to achieve competency in CVD and CCEP
- Decreased barriers to diversity in the CCEP workforce
- Reduced GME training costs

3. Did ACGME issue an official approval letter for the pilot?

The ACGME has approved a pilot program for the Cardiovascular Disease and Clinical Cardiac Electrophysiology

Competency-Based Alternative Training Pathway. The overarching goal of this pathway is to introduce a tailored, competency-based cardiovascular disease (CVD) curriculum to select trainees to allow early career focus in clinical cardiac electrophysiology (CCEP) during the third year of CVD training. This will result in completion of training in both specialties in 4 years (rather than 5 years as currently required).

4. Have there been other similar ABIM pilot programs for competency-based training pathways?

Yes. ABIM has approved 3 competency-based medical education pilots including GI/transplant hepatology, geriatrics/palliative medicine and internal medicine/cardiology. All 3 pilots differ substantially in goals and structure but all share the goal of using competency-based assessments in innovative ways.

5. How will training programs apply and be selected to participate in the CVD/CCEP Competency-Based Alternative Training Pathway Program?

All CVD and CCEP training programs in good standing with ACGME and with a status of continued accreditation will be eligible to participate in this project. Training programs must have support of their Graduate Medical Education Committee (GMEC), Designated Institutional Official (DIO), CVD and CCEP program directors, and assign a faculty lead for the pilot.

- 20 Institutions with both CVD and CCEP training programs and a status of continued accreditation with the ACGME will be chosen.
- Selection will be done through a random drawing if more than 20 programs apply.
- Each participating institution identifies and provides a faculty lead.
- Application approved and signed by home institution's CVD and CCEP program directors.
- Home institution must have notified their DIO/GME and be in process of obtaining formal approval or already obtained approval.
- Approval by CVD to EP Alternative Training Pathway Work Group.

6. How long will the pilot last before the alternative training pathway is offered to all training programs who wish to participate?

This has not been determined. A final decision about the status of the alternative training pathway program will be determined by the data collected from the pilot programs on the outcomes of training under the pilot system.

7. How will trainees decide whether to enroll in the alternative training pathway versus the conventional CVD/CCEP (3+2) training pathway?

Potential positive and negative impacts on the clinical learning environment are summarized below. Importantly, the alternate pathway is not intended to replace the traditional pathway. ACC and HRS propose co-existence of both pathways for CCEP (3+2 and 2+2) to better align training with career goals. For example, fellows whose career goals include advanced imaging or research would be advised to take the longer, traditional 3+2 pathway to accommodate the requisite learning. This pathway is not intended for a large number of fellows/programs. The ideal pilot program candidate has a strong early interest in EP, not a strong leaning towards research, and has demonstrated early achievements in CVD competencies.

Potential Positive Impact:

- Improved trainee wellness due to earlier career focus

- Improved perception of CVD and CCEP for students and younger trainees, addressing negative perceptions for underrepresented groups in cardiology leading to increased diversity in CCEP
- Favorable financial impact for trainees (i.e., opportunity to begin loan repayment sooner)
- Increased opportunities for fellows to pursue subspecialty training in CCEP, such as adult congenital heart disease electrophysiology or research
- Favorable financial impact on institutions, allowing for preservation and/or expansion of CCEP programs
- Favorable training pathway for international medical graduates who may have limitations to training due to visa restrictions.
 - The flexibility provided by the alternative pathway with 7 instead of 8 years of training allows CCEP programs to select from a diverse pool of talented candidates who are international medical graduates and rely on visas to remain in the United States. IMGs are an important part of the CCEP community and many who go on to practice for some time in the United States take care of patients in underserved areas.

Potential Negative Impact:

- Reduced trainee work force for program coverage
- Decline in trainee wellness due to compressed training schedule
- Lower competency level achievement in CVD or CCEP, impacting career choices and experiences for CCEP trainees
- Reduced options for gaining higher level of training and competence in transesophageal echocardiography, cardiovascular computed tomography, research, etc.
- Perception of decreased emphasis on general cardiology and/or research

The types of programs that will be most suited for this program have an existing strong relationship between CVD and CCEP programs and an ability to address issues such as training, staffing and financing locally and collectively.

8. What is the timeline for trainees to apply for the pilot program during their CVD fellowship and do they participate in the NRMP match?

- A general CVD fellow should declare interest in this program at end of Year 1 CVD training.
- The usual evaluation mechanisms will be utilized to include all forms of formative evaluations, leading into CVD milestones assessments in Years 1-3 and CCEP milestones in Years 3 and 4. From the standpoint of selection of candidates, it is recommended that CVD milestones assessments should demonstrate a favorable trajectory of progress in the second half of Year 1 into the first half of Year 2.
- Candidates in the 2+2 pathway may be selected through the NRMP or out of the Match depending on the accepting CCEP institution's preference.

Traditional "Short Track"

- Process mirrors old "short track" process.
- End of Year 1/Beginning of Year 2, fellow declares interest.
- Evaluation by CVD PD to determine approval. If approved,
 - Discuss with CCEP PD
 - Position could be offered outside the Match
- Decision must occur prior to NRMP deadlines to allow withdraw of slots from the Match

9. Will all CVD trainees enrolling in the alternative training pathway pilot program be internal candidates who are planning to continue their CCEP training at their CVD institution or can they apply to external CCEP programs?

This pathway is restricted to institutions with both CVD and CCEP fellowships. Pilot candidates have to be internal at this time.

10. How will the pilot program affect rotation schedules and funding within the existing 3-year CVD fellowship?

Rotation

Years 1-2

COCATS Level I rotations, select Level II supporting rotations may be possible in some programs.

Years 3-4

CCEP programs are encouraged to incorporate rotations/experiences that are specific to the trainee's career goals and count towards general cardiology and CCEP (e.g., research, ACHD, imaging). The CCEP program will work with the trainee to determine which and how many of these rotations are possible during CCEP training (see Table 2. Example of Rotations for 2+2 Model).

- Currently, according to general ACGME program requirements, general CVD fellowship requires 24 months of clinical cardiology and CCEP fellowship requires 24 months of clinical cardiology.
- Examples of rotations that could be counted for both CVD and CCEP are CT/MRI, TEE, research, and clinical electives.
- This training model is an accelerated track with expectations that most of the required clinical and procedural competencies (COCATS Level I) for CVD will be completed by end of Year 2.

Training goals of the fellow outside of Level 1 CVD (Level II echocardiography, CCT or other imaging and nuclear cardiology) need to be well defined and pathways pre-negotiated with the CVD and CCEP programs, representing a personalized curriculum for each fellow.

Funding

- Given the variability among institutions in the methods and resources used to finance trainees, local leadership will determine how to compensate trainees participating in this track.
- For trainees who transfer to a different institution for his or her CCEP specialty training, it is recommended that the subspecialty institution assume responsibility for all training costs during Years 3 and 4.

11. Will fellows enrolled in the CVD/CCEP pilot program be eligible to sit for the ABIM CCEP Board examination?

Yes. Candidates will be informed by the ABIM of their enrollment in the pilot and receive documentation that they are being granted an exception to existing ABIM training requirements that will allow them to sit for certification in both CVD and CCEP upon successful completion of training.

12. When can a fellow in the CVD/CCEP pilot program take the CVD and CCEP ABIM certification exams?

Fellows take the Cardiology boards at the beginning of 4th year (second year EP) and the EP after finishing year 4. Due to the compressed nature of this 2 + 2 track, it should be understood that this will be a more rigorous pathway.

13. Does the institutional GME office need to approve the pilot program?

Since the pilot program may be perceived as a new training track within CVD, it is best to involve the Designated

Institutional Official (DIO) and GME Committee early. The application requires the program to attest that the DIO and GME Committee have approved the pilot program or are in the process of doing so.

14. Do I need to request a fellow complement increase from the ACGME to participate in the pilot?

If the pilot fellow takes up an already approved CCEP fellow position, then no further action regarding fellow complement is needed. If your program intends to fill all approved CCEP positions with 4th year fellows AND wishes to participate in the pilot during the same year, then you will need to justify this increase in CCEP-trained fellows to the ACGME by applying for a temporary or permanent complement increase. The ACGME Internal Medicine Review Committee should not have an issue with this (the educational justification is the pilot program itself) as long as the program has sufficient core faculty and resources to train the additional fellow. It is the individual program's responsibility to apply for the complement increase. This is done through ADS and involves your GME committee and DIO.

15. Can a fellow be approved for the pilot before or during the first year of CVD fellowship?

No. The criteria for entry into the pilot include a determination by the CVD Clinical Competency Committee that the fellow is on a trajectory to achieve competence in CVD by the end of the second year. This generally cannot be determined prior to the start of CVD fellowship and is best assessed late in the first year or early during the second year of fellowship. A CVD fellow applicant cannot be promised a spot in the pilot program because the fellow must achieve certain milestones that demonstrate development of competence before acceptance into the pilot program. In cases where the fellow is not on a trajectory to achieve competence in CVD by the end of the second year, as determined by his/her performance by the end of the first year or the beginning of the second year, that fellow will not be allowed to enroll in the pilot program.

16. What are the reporting requirements for the pilot program to ensure that pilot fellows are meeting standards of competency?

The goals of the evaluation and assessment infrastructure in this project are similar to those in a traditional pathway. In years 1 and 2, the program director should assess the fellow's trajectory towards meeting the goals for CVD training at the end of Year 3. In year 3, both CVD and CCEP milestones will be assessed. Table 2 outlines available assessment tools to assess trainees developmental learning and, while end of rotation faculty evaluations are an important resource in this process, programs must use 2-3 additional assessment methods per competency domain to assess trainees. These data should be reviewed semi-annually by the CCC to formulate recommendations regarding the educational trajectory of the trainee and assist the program director with completion of the ACGME milestones. In addition, these data should be reviewed by the program director with the trainee to modify that trainee's individualized learning and develop a plan for remediation as necessary.

Table 2. Formal Assessments for Trainee Evaluation

Competencies Assessed	Assessment Tool	Timeframe (minimum)
Medical Knowledge	- Direct observation	- Monthly, Years 1-4
	- End of Rotation Evaluation	- Biannually
	- Chart Stimulated Recall	- Annually, Years 1-3 or as available by program
	- Multi-source Feedback	
	- ACC CVD In-training Exam	
Patient Care	- Direct Observation	- Month, Years 1-4
	- End of Rotation Evaluation	

	- Chart Stimulated Recall - Case logs - Multi-source Feedback - Quality metrics - Simulation with direct observation	- Annually - As available
Interpersonal and Communication Skills	- Direct observation - End of Rotation evaluation - Timely completion and audits of records - Multi-source Feedback	- Monthly, Years 1-4 - Biannually
Professionalism	- Direct observation - End of Rotation Evaluation - Multi-source Feedback - Participation at internal conferences and meetings - Attendance at local and national meetings	- Monthly, Years 1-4 - Biannually - Biannually - Annually
Practice Based Improvement	- Direct observation - End of Rotation Evaluation - Multisource Feedback - Trainee portfolio and individualized learning plans	- Monthly, Years 1-4 - Biannually - Biannually
Systems Based Practice	- Direct observation - End of Rotation Evaluation - Participate in review of patient care and quality performance data - Participate in division QI review - Complete QI project	- Monthly, Years 1-4 - Annual, Years 1-4 - Once during training

Program directors from both the CVD and CCEP programs will need to work together in a close working relationship during the pilot period to ensure the success of this program. They will also both need to attend monthly calls to monitor the progress of the pilot.

17. Does the pilot fellow need to complete all required clinical CVD training during the first 2 years of CVD fellowship before beginning the pilot CCEP year?

No. The first 2 years will focus on achieving clinical competencies defined by ACGME program requirements in CVD (i.e., COCATS "Level I" training). Note that current ACGME and ABIM requirements for CVD specify a minimum clinical experience of 2 years; thus, this proposal does not require a variance of CVR PR IV.C.3.a (24 months clinical experience). In year 3 programs are encouraged to incorporate rotations/experiences that are specific to the trainee's career goals and count towards general cardiology and CCEP (e.g., research, ACHD, imaging).

18. How will trainee enrollment in the pilot program affect scholarly activity?

We recognize this tradeoff between achieving clinical competency and pursuing scholarly activity. The pilot fellowship program is an intensive clinical track that will substantially decrease the time available to focus on research and other scholarly activities. This underscores the importance of selecting the appropriate fellow for the pilot program. Fellows who wish to focus on research may not be appropriate for the pilot program and should remain in the traditional track by completing 3 years of CVD training before pursuing CCEP training. This includes fellows funded by a T32 grant as there will not be sufficient time to fulfill requirements for research

training and clinical CVD training in a 2-year period prior to starting a pilot year. Pilot fellows must still fulfill the ACGME requirement to participate in research or other scholarly activities and this requirement is included in the ACGME Subspecialty Reporting Milestones as a distinct sub-competency for all Internal Medicine subspecialties.

19. Will the CVD CCC chair be required to sign the pilot application?

One of the most important criteria for applying to the pilot program is that the program must attest to the applicant's developing competence and the trajectory of the applicant toward competence in CVD by the end of their second year. The CCC is in the best position to attest to the applicant's competence, and we therefore want to emphasize the importance of the role of the CVD CCC chair in this process.

20. How will a pilot fellow be listed in ADS?

Pilot fellows will be listed in the ADS in the following manner: three years in the CVD program, followed by one year in the EP program. At the end of the third year of CVD training, program will graduate the pilot fellows and enter them into the EP program as second year EP fellows. Programs will need to identify the pilot fellows in ADS during the third year in the CVD program. This will trigger ADS to make the available CVD and EP Milestones for these fellows. Program can identify pilot fellows by the end of the first year of CVD training, but programs will not need to formally identify them as pilot fellows until the third year of CVD, primarily to facilitate the Milestones reporting process.

21. Which program director will be required to submit Reporting Milestones to ACGME? Will the program need to submit 2 sets of Reporting Milestones?

As noted above during the third year of training the CVD and CCEP Reporting Milestones for the pilot fellow will be made available. The CVD program director should complete the CVD milestones and the CCEP program director should complete the CCEP milestones. It is recommended that the CVD program director participate in the CCEP CCC meetings and/or the CCEP program director participate in the CVD CCC meetings when the pilot fellow is discussed.

22. What about FasTrack certification?

For the purposes of eligibility for certification in both specialties, ABIM needs confirmation of both the CVD and the CCEP general and procedural competencies of the pilot fellow. Therefore, programs will need to complete separate evaluations for CVD and CCEP.

23. Does the institution need to have a fellow identified who wants to short track in order to apply to be in the pilot program?

No. An institution can apply to the pilot program without having identified a participating fellow.

24. What if a program gets accepted into pilot program, but they end up not having a fellow who wants to train in EP?

The institution will still be able to remain in the pilot as they work to identify a candidate, even if they might not start until the 2024 academic year.