

Interventional Cardiology Fellowship Programs FAQ	
General Subspecialty Program Requirements	
Question	Answer
<p>Do the General Subspecialty Program Requirements apply to Interventional Cardiology? [see ACGME Program Requirements for Fellowship Education in the Subspecialties of Internal Medicine] [see RRC-IM General Subspecialty FAQ]</p>	<p>Absolutely. Interventional Cardiology program directors should study carefully the General Subspecialty Program Requirements, and the FAQs related to these program requirements. The requirements cover required structural elements in the program such as required institutional support, facilities and resources, key faculty and program director qualifications and responsibilities, conferences, continuity clinic, scholarship and research, evaluation, etc. Subspecialty fellowship programs are expected to be in full compliance with <u>both</u> the General Subspecialty Program Requirements, and the Subspecialty Specific Program Requirements.</p> <p>Unique Aspects of Interventional Cardiology (IC) re: General Subspecialty Requirements: <u>Fellow Scholarly Activity:</u> Principles:</p> <ul style="list-style-type: none"> • IC training requirements are designed as 12 months of intensive procedural training. • IC fellows must <u>participate in</u> scholarly activity, but cannot be held to the same research standard as fellows in 2-year and 3-year programs where up to 50% of training may be spent in research • Thus, IC fellows can meet the Scholarship Requirement by: <ul style="list-style-type: none"> ○ A research project (with faculty mentorship), <u>or</u> ○ Participation with the faculty in the initiation and conduct of clinical trials within the department, <u>or</u> ○ Participation in QA/QI or process improvement projects <p><u>Conferences:</u> Principle: Fellows must be trained in their specialty through didactic (conferences) and bedside (at the table) education</p> <ul style="list-style-type: none"> • At least 1 (one) <u>Clinical Case Conferences per week</u> <ul style="list-style-type: none"> ○ There must be distinct cardiology, and IC case conferences. <ul style="list-style-type: none"> ▪ The clinical case conferences are so sub-specialty specific that a separate conference series is necessary, and cannot be shared between cardiology, CCEP, and IC. ▪ Must include pathology reviews (i.e., autopsy, surgical pathology, biopsy specimens, etc.) ○ For IC, cath conferences, M&M, or CPCs are considered clinical case conferences ○ These must be attended by fellows and faculty in the sub-sub specialty • At least 48 <u>Core Curriculum Conferences per year</u> (average 1/week) <ul style="list-style-type: none"> ○ There must be a distinct cardiology and IC core curriculum conference series <ul style="list-style-type: none"> ▪ The core curriculum conferences are so sub-specialty specific that a separate conference series is necessary, and cannot be shared between cardiology and IC. ○ The core curriculum is intended to be a planned course in the subspecialty that covers the major topics in the subspecialty <ul style="list-style-type: none"> ▪ Include basic sciences ▪ Board Review lectures, or Board Review Courses count as core curriculum

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conferences

- At least 1 (one) Journal Club per month
 - An IC program may combine journal club with the parent cardiology program if:
 - All fellows attend the same conference at least monthly (not just when IC topics are discussed)
 - Key faculty from the sub-subspecialty attend the same conference with the fellows
 - Topics in the sub-subspecialty are discussed regularly
 - IC fellows are exposed to and discuss both the recent and classic literature in the sub-subspecialty.
- At least 1 Research Conference per month
 - An IC program may combined research conference with the parent cardiology program if:
 - All fellows attend the same conference at least monthly (not just when IC topics are discussed)
 - Key faculty and researchers in the sub-subspecialty attend the same conference with the fellows
 - Topics in the sub-subspecialty are discussed regularly

Web-Based Learning:

Principle: There are many potential advantages to e-learning venues, but two major concerns:

- What is the quality of the educational product?
- Did the learning actually take place?

- Programs may use Web-based instruction or other forms of electronic learning for some of the Core Curriculum Conferences provided the following criteria are met.
 - E-learning should be considered as an adjunct to Core Curriculum conferences presented by the faculty.
 - E-learning venues must satisfy the following criteria in order to be substituted for a traditional didactic conference:
 - The educational content must be reviewed and approved by the Key Faculty.
 - Commercially-produced modules must be reviewed and endorsed by a professional society committed to the area under consideration, in order to assure competent and unbiased sources of educational material.
 - The e-learning must be followed by a discussion (in a formal set-aside session) with key faculty in order to answer questions, provide relevance, and to demonstrate the importance of the learning venue and topic. Video-conferencing or tele-conferencing can be used for this purpose
 - There must be tracking by the fellow and the program to insure that the fellow completed the prescribed module. An educational portfolio of learning, with subsequent reflection upon practice-based

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	<p>learning experiences, is suggested as the most appropriate measure of competency.</p> <p><u>Continuity Clinic:</u> Principle: Simply evaluating patients post-procedure for the absence of complications is inadequate follow-up/ continuity.</p> <ul style="list-style-type: none"> • IC fellows are required to have an ambulatory experience at least weekly. • Fellows need to participate in the pre-hospital evaluation (indication for procedure) and the post-hospital follow-up (efficacy and outcome of the procedure). • Simply evaluating all of the patients post-procedure for the absence of complications is inadequate follow-up/ continuity. The CCEP fellow should have the opportunity to see 25-50% of the patients for whom they do interventions in follow up, in order to gain experience in the long term management of the patient. In addition, they should have the opportunity to evaluate and follow patients who have been proposed as candidates for the procedure, but for whom the procedure has been determined to be contraindicated or for whom other therapies have been determined to be more appropriate. • Each IC fellow must see 4-8 patients per week for pre-procedure evaluation and/or post-procedure follow-up in the outpatient setting • The 4-8 patients per week in the ambulatory setting need not be seen in one afternoon – they may be spread out over the week. • Fellows may use clinic time to obtain F/U on patients for whom they have performed a procedure and who have been returned to the care of the referring physician. The purpose of this F/U is to obtain feedback about the patient's clinical course after the procedure. Some of the F/U contact may be by telephone, but no more than 50% on average. <p><u>Horizontal Disciplines:</u> Principle: Ethics, QA/QI, medical legal, end-of-life, etc. should be covered during residency and cardiology fellowship.</p> <ul style="list-style-type: none"> • It is not necessary for IC fellows to have separate conferences specifically devoted to ethics, end of life issues, quality improvement, etc. • Instead, these topics should be discussed as appropriate during the case conferences, research conference, journal club, and core curriculum conference series, as well as during case-based learning (teaching rounds, during procedure supervision, clinic, etc.).
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Educational Program Question	Answer
Are programs allowed to include non-coronary interventions in the program? [Program Requirement VIII.A.]	Programs may also train fellows in peripheral, renal, carotid, etc. training <u>if appropriate</u> faculty expertise is available for training <u>and if</u> the fellows can achieve all required competencies for IC training, particularly competence in coronary intervention.
Can interventional cardiology fellows also receive training in peripheral artery interventions during their fellowship? Program Requirement VIII.A.]	Programs may also train in peripheral, renal, carotid, etc. interventions if appropriate faculty expertise is available for training and the peripheral vascular training does not interfere with achieving the requirements for interventional cardiology training.
We have a 2-year program that includes research and non-coronary interventions. How should we structure the rotations? [Program Requirement VIII.B.]	<ul style="list-style-type: none"> • All accredited training must be completed in 12 <u>consecutive</u> months. Each month must be clinical. • Fellows may participate in research, but each rotation must be primarily clinical. • Training must be based at the site of the parent CV program; The

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[Program Requirement VIII.C.]	RRC does not allow stand-alone IC or CCEP programs. <ul style="list-style-type: none"> If the program has a second year, all accredited training must be completed during the accredited first year.
Can we have fellows complete their IC training between the second and third year of cardiology fellowship? Can we accept IMGs without ACGME-accredited cardiology training? [Program Requirement VIII.C.]	Non-sequential training (i.e., 2 years of cardiology, followed by IC, followed by the third year of cardiology) is not acceptable to the RRC-IM. Fellows must complete three years of cardiology prior to entering an IC program. Rationale: <ul style="list-style-type: none"> The minimum required 4 months of cardiac catheterization experience would not be adequate preparation for fellows entering an IC fellowship. Additional catheterization experience – in the third year of cardiology – would be necessary in order for fellows to be sufficiently proficient at catheterization techniques to complete all of the IC training requirements in the accredited 12 months. In addition, the Committee is concerned about fragmentation of training and peer interaction. This requirement does not preclude programs from accepting up to 25% of fellows with foreign cardiology training without ACGME cardiology fellowship training. However, these fellows must have the equivalent of three years of cardiology training before entering the IC fellowship.
Can a dedicated month or more of research or other non-clinical, non-interventional cardiology training be included in the 12 months of required clinical training? Program Requirement VIII.C.]	Each month must be clinical interventional cardiology. Fellows may participate in research, but each rotation must have a clinical component.
What procedures 'count' for the required 250 interventions? [Program Requirement VIII.D.2.]	Fellows must act as the primary operator in order for procedures to count toward their procedural competency.
What procedures does the program need to track for Interventional Cardiology fellows?	<u>Interventional Cardiology procedures that must be documented in fellow's procedure log:</u> <ul style="list-style-type: none"> Right and left heart catheterization including coronary arteriography, ventriculography, and hemodynamic measurements Intravascular ultrasound Doppler flow, intracoronary pressure measurement and monitoring, and coronary flow reserve Coronary interventions <ul style="list-style-type: none"> Femoral and brachial/radial cannulation of normal and abnormally located coronary ostia Application and usage of balloon angioplasty, stents, and other commonly used interventional devices
Does a fellow who assists in an interventional cardiology procedure receive credit for that procedure? [Program Requirement VIII.D.2.]	No. Fellows must act as the primary operator in order for procedures to count toward their procedural competency.
Faculty Question	Answer
Please explain the requirement that faculty perform 75 interventions at the site of supervision. [Program Requirement IX.B.] [Program Requirement X.D.3.b)]	<ul style="list-style-type: none"> Faculty supervising fellows must perform <u>75 interventional procedures at the site where they supervise fellows</u>. This insures that fellows are not supervised by low-volume operators, and that faculty are familiar with the lab, personnel, procedures, etc. at the location where they supervise fellows. Thus, a faculty member with 25 procedures per year at three sites

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	<p>could NOT supervise fellows in an IC program.</p> <ul style="list-style-type: none"> All supervising faculty (at primary or other site) must maintain a minimum volume of 75 interventions <u>at the site where they supervise fellows.</u>
Facilities and Resources	
Question	Answer
<p>Please explain the rationale and interpretation for the two requirements dealing with the minimum number of procedures performed by each lab used by the training program. [Program Requirement X.D.2.] [Program Requirement X.D.3.a)]</p>	<ul style="list-style-type: none"> At Primary Training Site, the primary lab must maintain a minimum of 400 interventions per year. If there is a secondary lab at the primary site, that lab must maintain a minimum of 200 interventions per year, e.g., A lab staffed by the same faculty, or a lab in an affiliated hospital that is <u>part of the core IM residency with separate faculty</u> At sites other than the Primary Training Site (i.e., participating institutions), the lab must maintain at least 400 interventions per year.
<p>Please explain the continuity requirement. [Program Requirement X.D.6.]</p>	<ul style="list-style-type: none"> Interventional fellows are required to have an ambulatory experience at least weekly. Fellows need to participate in the pre-hospital evaluation (indication for procedure) and the post-hospital follow-up (efficacy and outcome of the procedure). Simply evaluating all of the patients post-procedure for the absence of complications is inadequate follow-up/ continuity. The interventional fellow should have the opportunity to follow 25-50% of the patients in whom they do interventions longitudinally to gain the experience in the long term management of the patient. In the other patients, the fellow should follow them for complications Each interventional fellow must see 4-8 patients per week for pre-procedure evaluation and/or post-procedure follow-up in the outpatient setting. These 4-8 patients per week in the ambulatory setting need not be seen in one afternoon – they can be spread out over the week. Fellows may use clinic time to obtain follow-up on patients for whom they have performed a procedure and who have been returned to the care of the referring physician. The purpose of this F/U is to obtain feedback about the patient's clinical course after the procedure. Some of the F/U contact may be by telephone, but no more than 50% on average.

APPENDIX I

RRC-IM Calculation of Minimum Key Clinical Faculty (KCF) and Key Clinical Faculty (KCF) Scholarship Participation/Productivity				
Interventional Cardiology				
Minimum 2 KCF or 1:1.5 faculty-fellow ratio for programs with 4 or more fellows fellows				
Approved Fellow Complement	Minimum Certified KCF (incl PD)	Majority of Minimum KCF (50%)	<u>PARTICIPATION</u> KCF with at Least 1 Pub Past 3 Years [259]	<u>PRODUCTIVITY</u> Pubs All KCF Past 3 Years (1/yr x 3 yrs) [259]
2	2	1	1	3
3	2	1	1	3
4	3	2	2	6
5	4	2	2	6
6	4	2	2	6
7	5	3	3	9
8	6	3	3	9
<ul style="list-style-type: none"> • Publication = Research publication, review article, or editorial in a peer review journal (PRJ), funded peer-review grant, or book chapter. • Scholarly case reports acceptable (Sept 2007) if indexed in Pub Med, and copy submitted with PIF • Peer review publication = indexed in Pub Med (or Medline). If not in Pub Med, PD must supply evidence of peer review • In press or accepted for publication counts. Submitted or in preparation does not count. • Abstract, illustration, letter to the editor, presentation, or publication in non-PRJ does not count. • Peer-reviewed funding (NIH, NCI, or other government-funded or national-foundation funded) counts • Industry, pharmaceutical, or other non-peer-review grant does not count. <ul style="list-style-type: none"> • Exception: Pharmaceutical studies in which the KCF is the overall PI (lead investigator) for all sites will be accepted as counting as one product of scholarship • 1 paper = 1 paper; Do not count multi-author papers more than once. • Count the last three calendar years prior to PIF submission. If site visit is in Sep. 2008, count publications from 2005, 2006, and 2007 as well as 2008. • <u>Contribute to participation:</u> Only ABIM certified KCF • <u>Contribute to productivity:</u> <ul style="list-style-type: none"> • Certified KCF • Additional sub-specialty KCF (above minimum required, certified or non-certified) • Non-physician faculty and faculty in other specialties IF: <ul style="list-style-type: none"> ▪ Contribute to fellow education ▪ Devote at least 10 hours/ week to the program 				