

**Frequently Asked Questions: Aerospace Medicine
(effective July 1, 2023)
Review Committee for Preventive Medicine
ACGME**

Question	Answer
Introduction	
<p>If a resident enters the program having previously obtained a Master of Public Health degree, is the curriculum for that resident still expected to be 24 months in length?</p> <p><i>[Program Requirements: Int.C.; IV.C.6.-IV.C.6.a]</i></p>	<p>Yes, if not appointed at the AM-2 level, all residents appointed to the program must complete 24 months of education. Additionally, prior to graduation, a resident who has already earned a Master of Public Health or equivalent degree must have completed all the required graduate-level course work in epidemiology, biostatistics, health services management and administration, environmental health, and the behavioral aspects of health. These courses must be completed during or in addition to the resident's previously awarded master's degree.</p>
<p>What must a program do to be configured in the 36-month format?</p> <p><i>[Program Requirement: Int.C.]</i></p>	<p>Programs wishing to switch to the 36-month format must submit a block diagram outlining all three years of education and training and a written agreement outlining the clinical site(s) that will provide the required PGY-1 direct patient experiences. This agreement should attest that the site can accommodate the additional learners and note who will be responsible for their education at the site. Requests must be submitted to Review Committee staff members via email.</p>
Sponsoring Institution	
<p>Can the required flight training program be at a site other than the aerospace medicine program's Sponsoring Institution?</p> <p><i>[Program Requirement: I.D.1.a]</i></p>	<p>The flight training program can be at a site other than the aerospace medicine's Sponsoring Institution. However, it is recommended that both programs be geographically proximate to each other so that residents can conveniently use the flight training site without interference with their other program responsibilities.</p>
<p>Will a citation result if a program accepts an "other learner," such as a physician gaining eligibility for the American Board of Preventive Medicine (ABPM)'s "complementary pathway," who is not part of an ACGME-accredited residency?</p> <p><i>[Program Requirement: I.E.]</i></p>	<p>Any learner meeting all the requirements for appointment at the AM-1 or -2 level can be appointed as a resident in the program. A citation could result if the presence of any other learner has a significantly negative impact on the education of enrolled residents.</p>

Question	Answer
Personnel	
<p>Must the program director have current certification in aerospace medicine?</p> <p><i>[Program Requirement: II.A.3.b)]</i></p>	<p>While it is desirable for the program director to have current certification in aerospace medicine, individuals with current certification in either occupational medicine or public health and general preventive medicine can be considered. In such circumstances, there should be evidence of other qualifications in aerospace medicine, including administrative experience, peer-reviewed publications, and/or acknowledged work in the specialty.</p>
<p>What specialty qualifications are acceptable to the Review Committee if the program director does not have current certification by the ABPM or the American Osteopathic Board of Preventive Medicine (AOBPM)?</p> <p><i>[Program Requirement: II.A.3.b)]</i></p>	<p>In rare and unusual circumstances, the Review Committee will consider an exception to the requirement for ABPM or AOBPM certification for the program director. Exceptions are made on a case-by-case basis. In these cases, the Committee considers physicians with certification in a specialty recognized by the American Board of Medical Specialties or AOA who have demonstrated experience in the field of aerospace medicine through:</p> <ul style="list-style-type: none"> • at least three years of administrative experience; • significant peer-reviewed publications; or, • acknowledged work in the field.
<p>What type of ongoing clinical activity is required for program directors, including those employed by health departments?</p> <p><i>[Program Requirement: II.A.3.d)]</i></p>	<p>Clinical activity for program directors refers to the practice of medicine in which physicians assess patients or populations to diagnose, treat, and/or prevent disease using their expert judgement. For program directors working in a health department, a university, or a school of public health, some examples of clinical activity include: caring for patients in a public health setting; conducting health research on populations; analyzing and developing health policies; developing and providing decision support and information systems to improve population health; and, planning and evaluating medical aspects of emergency preparedness programs.</p>
<p>How is the core faculty member-to-resident ratio interpreted for programs with more than eight residents?</p> <p><i>[Program Requirement: II.B.4.b)]</i></p>	<p>For programs with more than eight residents, the number of core faculty members required can be calculated by dividing the total number of residents in the program by four. If the calculation results in a decimal less than .5, the number of core faculty members is rounded downward; if the calculation results in a decimal greater than or equal to .5, the number of core faculty members is rounded upward. For example, a program with nine residents would require two core faculty members, a program with 11 residents would require three core faculty members, and a program with 14 residents would require four core faculty members.</p>

Question	Answer
<p>Can one program coordinator support two programs?</p> <p><i>[Program Requirement: II.C.2.a)]</i></p>	<p>Yes, if there are two programs at the same institution, one coordinator can be appointed to both programs provided that neither program requires more than 50 percent dedicated time by the program coordinator. The coordinator's time must be split evenly between the programs to fulfill the requirement for a minimum of 50 percent time for each program.</p>
Resident Appointments	
<p>If a resident completed prerequisite post-graduate clinical education prior to implementation of the Milestones, what verification of the resident's level of competence should be obtained from the resident's prior educational program upon matriculation?</p> <p><i>[Program Requirement: III.A.2.a)]</i></p>	<p>If Milestones were not in place when a resident completed the prerequisite clinical education program, any summative evaluation of competence from the prior program is acceptable.</p>
<p>What rotations should be included during the required 12 months of clinical education for residents entering a 24-month program?</p> <p><i>[Program Requirements: III.A.2.b)-III.A.2.b).(1)]</i></p>	<p>Direct patient care experiences are required. The experience can be obtained in a variety of inpatient and outpatient settings but must include responsibility for the direct care of individuals. With appropriate supervision, residents must have opportunities to develop competence in the assessment, screening, diagnosis, and treatment of individual patients. Experiences in research or laboratories do not count toward the required months.</p>
<p>What documentation is required to appoint a resident entering the program at the AM-2 level?</p> <p><i>[Program Requirement: III.A.2.c)]</i></p>	<p>Program directors are responsible for ensuring that residents appointed at the AM-2 level have the following documents in their files to verify eligibility: written or electronic verification of previous educational experiences; a summative evaluation issued upon completion of the previous residency program; a transcript of master's-level courses completed prior to entry to the AM-2 year; and an individual educational plan developed upon entering the AM-2 year.</p>
<p>How should residents appointed at the AM-2 level be listed in the program's Resident Roster in the Accreditation Data System (ADS)?</p> <p><i>[Program Requirement: III.A.2.c)]</i></p>	<p>Residents appointed at the AM-2 level should be listed in the Resident Roster in the same manner as any other resident. These residents would only be listed in the program's Resident Roster for one year and then marked as "completed all accredited training" upon completion of the AM-2 year.</p>

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<p>Does completion of a residency program in any specialty qualify a resident to be appointed at the AM-2 level?</p> <p><i>[Program Requirements: III.A.2.c).(1)-III.A.2.c).(1).(a)]</i></p>	<p>No, all residents must have completed at least 10 months of direct patient care experience prior to appointment at the AM-2 level. A resident must have completed a residency program in a direct patient care specialty or in a specialty that requires completion of a direct patient care clinical year prior to entry to be considered for entry at the AM-2 level.</p>
Educational Program	
<p>Can population-based patient care competencies be assessed through assignments at a clinic?</p> <p><i>[Program Requirement: IV.B.1.b)]</i></p>	<p>In general, a clinic's primary function is to provide <i>individual</i> patient care.</p> <p><i>Population-based</i> patient care competencies generally cannot be assessed through clinic assignments, but rather through experiences with health systems, health plans, or agencies.</p> <p>However, some clinics do deliver care to an entire population. In those cases, it may be possible for a resident to achieve both individual and population-based patient care competencies through that clinic assignment. For example, the population-based aspects may be accomplished through analyzing aggregate data.</p>
<p>How will the Review Committee assess compliance with the requirement that residents demonstrate competence in their knowledge of the medical knowledge competencies listed, and can the required material be covered in a class or in practicum experiences, such as in research analysis?</p> <p><i>[Program Requirements: IV.B.1.c)-IV.B.1.c).(4).(e)]</i></p>	<p>The program must document that each resident participated in graduate course work in the required areas and that each resident attained sufficient competence in those areas. These requirements can be met by combining a degree program with other didactic experiences, such as a lecture series that covers topics with the same breadth, depth, and scope as a graduate-level course, and that includes evaluation methods, and is taught by appropriately credentialed faculty members.</p> <p>Documentation would need to include a transcript and a course syllabus for courses taken at an academic institution. Documentation for courses taught during didactic sessions would need to include a rotation description (educational goals and objectives) and a notation of satisfactory course completion in the individual resident's educational plan and portfolio.</p> <p>Assessment of competence achievement must be addressed. The program must be able to document that the total of the didactic sessions offered would be equivalent to a course offered in a graduate school that is sufficient to achieve the competencies listed in that area of the Program Requirements.</p>

Question	Answer
<p>What is the definition of lifestyle management?</p> <p><i>[Program Requirement: IV.B.1.c).(2).(a)]</i></p>	<p>Lifestyle management is an intervention designed to promote positive lifestyle and behavior change in the field of health promotion. Physicians educated and trained in lifestyle management have skills in program administration and management and knowledge of how the following factors contribute to disease: dietary patterns; physical inactivity; tobacco use; excessive alcohol consumption; and psychosocial factors such as chronic stress and lack of social support and community. A lifestyle management program may also be referred to as a health promotion program, health behavior change program, lifestyle improvement program, or wellness program.</p>
<p>What specific topics should be included in the curriculum to allow residents to develop and ultimately demonstrate competence in their knowledge of principles of accident investigation/risk management and mitigation?</p> <p><i>[Program Requirement: IV.B.1.c).(4).(a)]</i></p>	<p>Examples of accident investigation/risk management and mitigation topics include aerospace safety and accident overview, biomechanics and physiology of impact, restraint systems, crew protection and protective equipment, crew escape and extrication concepts, aviation and space vehicle crashworthiness, aerospace injury mechanisms, post-accident survival equipment, conduct of an accident investigation, forensic concepts, legal issues, interface with governmental bodies, and promoting prevention strategies to mitigate accident injury and avoid future accidents.</p>
<p>What specific topics should be included in the curriculum to allow residents to develop and ultimately demonstrate competence in their knowledge of principles of global health and travel medicine?</p> <p><i>[Program Requirement: IV.B.1.c).(4).(b)]</i></p>	<p>Examples of global health and travel medicine topics include review of endemic diseases in tropical and developing countries, including the epidemiology, prevention, control, diagnosis, and treatment of illnesses in international travelers; the impact of worldwide air travel; and deployment planning/counseling for those traveling to remote locations.</p>
<p>What specific topics should be included in the curriculum to allow residents to develop and ultimately demonstrate competence in their knowledge of principles of aviation and space medicine?</p> <p><i>[Program Requirement: IV.B.1.c).(4).(d)]</i></p>	<p>Examples of principles of aviation and space medicine topics include history of aviation/spaceflight; overview of the specialty of aerospace medicine; the aviation and space environment; human physiology in aviation and spaceflight; crew protection; human factors engineering concepts; the role of aerospace medicine specialists in crew selection, training, medical certification, and health maintenance; and aerospace medical operations, including aeromedical transport of patients with common medical problems.</p>

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<p>What specific topics should be included in the curriculum to allow residents to develop and ultimately demonstrate competence in their knowledge of principles of toxicology?</p> <p><i>[Program Requirement: IV.B.1.c).(4).(e)]</i></p>	<p>Examples of toxicology topics include basic toxicological principles, hazard identification and recognition, clinical effects and management of agents found in the aviation and space environment, countermeasures and protection concepts, forensic and legal issues, specific aerospace occupational risks, and monitoring for short- and long-term health sequelae in those exposed to toxicological agents. Residents may be familiar with general principles and basic concepts of toxicology, including dose response, toxicokinetics, toxicodynamics, target organs, and effect modification by toxicant. Major mechanisms of toxicity, including mutagenesis, teratogenesis, carcinogenesis, and immunotoxicity, may also be included. In addition, toxic effects of selected substances, including solvents, metals, pesticides, fibers, toxins, and radiation, should be surveyed. Coursework could also include the validity of toxicological literature generated by the lay press, the scientific community, and regulatory agencies.</p>
<p>What educational experiences can be used to teach residents to communicate with patients and patients' families and partner with them to assess care goals?</p> <p><i>[Program Requirement: IV.B.1.e).(2)]</i></p>	<p>Examples of educational experiences include didactics, small group discussion, problem-based learning, journal clubs, simulation, or direct patient care experiences.</p>
<p>What is required in a resident's individual educational plan when entering the program at the AM-2 level?</p> <p><i>[Program Requirement: IV.C.4.b)]</i></p>	<p>The program director and a resident entering at the AM-2 level should review the resident's prior educational experiences to identify any competence gaps typically covered in the program's AM-1 year. The plan should include all the required curriculum components of the program's AM-2 year and any additional educational experiences needed to close the gaps identified during the initial assessment. Additionally, prior to completion of the program, a resident appointed at the AM-2 level must complete a Master of Public Health or equivalent degree program.</p>

Question	Answer
<p>How will the Review Committee evaluate progressive responsibility for direct patient care and the management of health and provision of health care for a defined population?</p> <p><i>[Program Requirement: IV.C.5.a]</i></p>	<p>Residents must continually take on more responsibility for the services they deliver to their defined patients. For example, a resident must demonstrate the ability to develop progressively more complex patient care plans over time. Progressive population-based care may be demonstrated by initially developing rudimentary plans to address a problem and, later in the program, demonstrating the ability to develop complex solutions. A resident must also develop progressive teaching responsibilities related to direct patient care, which can be done by teaching more junior residents and other learners, as appropriate, how to manage clinical patients and population-based problem solving. One way the Review Committee will evaluate progressive responsibility is through review of the rotation schedule; AM-2 rotation descriptions and goals/objectives must be different from those for the AM-1.</p>
<p>What other equivalent degrees are acceptable in lieu of a Master of Public Health?</p> <p><i>[Program Requirement: IV.C.6.]</i></p>	<p>Equivalent degrees include: a doctorate or master of science degree in epidemiology, preventive medicine, community health, environmental science, environmental toxicology, or occupational science; a master of tropical medicine and hygiene degree; a master of occupational health degree; a master of health sciences degree; a master of health administration degree; or a master of research degree. Acceptance of a specific degree is up to the program's discretion.</p>
<p>Is there a minimum number of credits for the graduate coursework required by the Committee?</p> <p><i>[Program Requirement: IV.C.6.a]</i></p>	<p>The Review Committee does not have a specific credit hour requirement; however, the program director must document in each resident's individual educational plan that the specific competencies required to be covered through education in the coursework were achieved.</p>
<p>Must the required graduate-level coursework in epidemiology, biostatistics, health services management and administration, environmental health, and the behavioral aspects of health be taught as free-standing courses?</p> <p><i>[Program Requirement: IV.C.6.a]</i></p>	<p>No. The course material may be covered in multiple courses or in one large, mega-course that includes multiple subjects.</p>
<p>What specific topics should be included in the graduate-level coursework in health services management and administration?</p> <p><i>[Program Requirement: IV.C.6.a]</i></p>	<p>Examples of health services management and administration topics include organization, personnel management, human resources, labor relations, strategic planning, health care financing, and budgeting.</p>

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<p>What specific topics should be included in the graduate-level coursework in environmental health?</p> <p><i>[Program Requirement: IV.C.6.a]</i></p>	<p>Examples of environmental health topics include effects of biological, chemical, and physical agents; population health implications of air and water quality; food safety; climate change; hazardous materials management; sanitation and management of solid waste; and exposure to radiation, noise, temperature, mechanical injury, and vector control. Residents should be familiar with principles of risk assessment, including exposure assessment, hazard identification (dose/response and toxicology), risk management, and risk communication. Content may also include emergency preparedness (disaster planning and management for natural events, bioterrorism, and manmade disasters), an introduction to environmental epidemiology, and the basic principles and legal and regulatory issues in occupational medicine and aerospace medicine.</p>
<p>What specific topics should be included in the graduate-level coursework in behavioral health?</p> <p><i>[Program Requirement: IV.C.6.a]</i></p>	<p>Examples of behavioral health topics include models of counseling for behavior change, such as transtheoretical, ecologic, precede-proceed, and the "5 As." Residents should be familiar with the epidemiology, prevention, intervention, and risk factors related to mental health disorders, as well as epidemiology, risk factors, screening, prevention, and intervention related to substance use and misuse. Content should also include proper communication techniques related to health risks, health promotion, and health education models for individuals and population groups.</p>
<p>What elements may be present for settings for resident education where operational aeromedical problems are routinely encountered and human life support systems are under active study and development?</p> <p><i>[Program Requirement: IV.C.8.]</i></p>	<p>These settings may include access to extreme environments (real or simulated), such as altitude chambers, bed rest facilities, (spaceflight analog) centrifuges, hyperbaric chambers, and in-flight training (real exposures and association with direct crew contact). Other acceptable settings where operational aeromedical problems are routinely encountered include flight medicine clinics, medical certification referral centers, and flight control centers (such as NASA), where residents can learn about medical flight rules, life support systems, medical care systems, and how to provide medical care through telemedicine.</p>
<p>Is "direct patient care" only one-on-one examination and treatment of individual patients?</p> <p><i>[Program Requirement: IV.C.8.a]</i></p>	<p>Direct patient care includes assessment, screening, diagnosis, and treatment of patients. These educational experiences can occur in a range of adequately supervised, patient-focused clinical settings, such as in a tuberculosis clinic, a private practitioner's office, a sexually transmitted infection clinic, a rural health clinic, a migrant worker clinic, or a travel medicine clinic.</p>

Question	Answer
<p>Is there flexibility in how much direct patient care must be accomplished during each year of the program?</p> <p><i>[Program Requirement: IV.C.8.a]</i></p>	<p>No. the curriculum must contain the minimum number of months of direct patient care as outlined in the Program Requirements for each year of the program. Programs can plan additional time in direct patient care as long as all other required resident experiences are included in the curriculum.</p>
<p>Can the required minimum duration of direct patient care experiences be distributed throughout the academic year, or must it be completed in a solid block?</p> <p><i>[Program Requirement: IV.C.8.a]</i></p>	<p>The experience can be divided into half-day increments, with 20 days equalling one month. An experience obtained during 40 half-days in a clinic that provides direct patient care is equivalent to one month of direct patient care.</p>
<p>During the required direct patient care experience, can a resident participate in activities such as an Objective Structured Clinical Examination (OSCE) or other simulated patient encounters, clinical rounds involving patients, and laboratory patient care activities (e.g., reading malaria and parasitology slides, reading x-rays of TB patients)?</p> <p><i>[Program Requirement: IV.C.8.a]</i></p>	<p>OSCEs and other simulation tools are high-quality evaluation tools and can be used to supplement, but not replace, experience in direct patient care.</p>
<p>Does prior clinical education fulfill the requirement for direct patient care?</p> <p><i>[Program Requirement: IV.C.8.a]</i></p>	<p>No, unless a resident is appointed at the AM-2 level, prior clinical education and experience do not count toward fulfillment of the requirement for the minimum number of months of direct patient care. Direct patient care experience in the program should focus on the defined aerospace medicine competencies.</p> <p>Residents appointed at the AM-2 level must be provided with a minimum of four months of direct patient care experience during their one year in the program.</p>

Question	Answer
<p>If the Sponsoring Institution is expected to provide funds for residents to attend a national professional meeting, is it expected to cover the full cost, including travel, and is there a limit to how much it is expected to cover?</p> <p><i>[Program Requirement: IV.D.1.b).(1)]</i></p>	<p>The Sponsoring Institution must ensure that every resident is afforded the opportunity to attend a national meeting. The Sponsoring Institution is expected to provide funds to cover the usual costs of attending a national meeting, including registration fees, travel, lodging, and meals. There is no specific upper limit to what this would require of an institution.</p>
The Learning and Working Environment	
<p>Can AM-1 and -2 residents be supervised by any licensed allied health professionals?</p> <p><i>[Program Requirement: VI.A.2.a).(2)]</i></p>	<p>AM-1 and -2 residents may be supervised by licensed allied health professionals who are identified as faculty members, provided that:</p> <ul style="list-style-type: none"> • the clinical care is within their scope of practice expertise; • the level of clinical care is low risk; • physician faculty members are available by telephone; and, • the program director has approved the supervision with respect to the educational experience. <p>Allied health professionals cannot substitute for physician faculty members to meet the 24-hour requirement for on-site supervision of resident care.</p>
<p>Does work, studying, or reading done outside of scheduled work hours count towards a resident's clinical and educational work hours?</p> <p><i>[Program Requirement: VI.F.1.]</i></p>	<p>Time spent reading, studying, preparing for classes, analyzing data, or preparing a scientific paper outside of scheduled work hours does not count towards clinical and educational work hours. For example, studying for a required exam on a scheduled day off from clinical duties does not count towards clinical and educational work hours.</p>