



Designation Subspecialty Examination

Detailed Content Outline

(Effective May 1, 2019)

Introduction

In following best practices, the Academy conducted a Job Analysis Study to ensure content validity of the ACRP-MDP Examination. Program content validity is demonstrated with a comprehensive job analysis conducted and analyzed by experts, with data gathered from practitioners within the profession. The process utilizes survey data specifications to assess clinical research medical device professionals' competence and determine the level of importance of specific knowledge and tasks required to perform in the role of an ACRP-MDP. This document contains the Detailed Content Outline (DCO) for the ACRP-MDP. Each question on the exam is based on this outline.

Using the ACRP-MDP Detailed Content Outline (DCO)

The results of the study provided the framework for the knowledge and tasks important to the role of an ACRP-MDP and therefore the content of the exam. To become certified, it is expected to have proficiency in the five (5) main content areas of clinical research, displayed in the chart below. The percent of questions dedicated to each content area are provided.

| | Content Areas | | |
|------|---|------|--|
| ١. | Ethical and Participant Safety Considerations | 25% | |
| ١١. | Investigational Product/Device Regulations | 10% | |
| III. | Clinical Trial Operations (GCPs) | 30% | |
| IV. | Study and Site Management | 30% | |
| ٧. | Scientific Concepts and Research Design | 5% | |
| | Total | 100% | |

The specific knowledge and tasks identified as important are provided in the Medical Device Professional DCO listed below. Therefore, to prepare to take the ACRP-MDP Exam, one should study this outline and especially consider the underlying knowledge, skills, and abilities needed. It is recommended that an eligible candidate use this outline to identify knowledge gaps for constructing a relevant preparation plan.



Medical Device Professional (ACRP-MDP[®]) Designation Subspecialty Examination Detailed Content Outline

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| Content Area I | Ethical and Participant Safety Considerations – 25% |
|----------------|--|
| Task 1 | Review the safety and performance of the investigational product/device (e.g., using the instructions for use/IB) |
| Task 2 | Develop the informed consent form, and process for obtaining consent |
| Task 3 | Compare and contrast clinical care and clinical management of research participants (e.g., standard of care vs protocol requirements) |
| Task 4 | Identify and comply with the requirements for human subject protections and privacy under different national and international regulations and ensure their implementation throughout all phases of a clinical study |
| Task 5 | Identify safety risks related to device studies |
| Task 6 | Confirm the inclusion and exclusion criteria assure human subject protection |
| Task 7 | Evaluate and/or explain the benefits versus risks for study subject protection |
| Task 8 | Develop, maintain, and/or review unblinding procedures as applicable |
| Task 9 | Evaluate potential conflicts of interest |
| Task 10 | Manage device recalls, study holds, and safety alerts |
| Task 11 | Manage subject registries and long-term follow-up, continued access |
| Knowledge | the requirements for human subject protections and privacy the principles and methods of risk versus benefit through selection and management of clinical trial subjects adverse event, device effect, and device deficiencies classification, documentation, and reporting blinding procedures components of subject eligibility requirements (e.g., eligibility deviations and subject follow-up, anatomical assessment) elements of the instructions for use/IB safety monitoring subject discontinuation criteria/procedures subject registries, long-term follow-up, and continued access strategies subject safety and privacy issue management conflicts of interest in clinical research device recalls, study holds, and safety alerts |



| Content Area II | Investigational Product/Device Regulation – 10% |
|------------------|--|
| Knowledge | the roles and responsibilities of the various stakeholders in the clinical trials (e.g., field clinical engineer, sponsor representative) the specific processes and phases that must be followed for an investigational product/device (e.g., feasibility, pilot, pivotal, post market) regulatory reporting requirements (e.g., pre- and post-approval, safety) clinical trial registries and requirements (e.g., post market clinical follow-up) |
| Content Area III | Clinical Trial Operations (GCPs) – 30% |
| Task 1 | Evaluate the conduct and management of clinical trials within the context of applicable plans (e.g., protocol, study plan, monitoring plan, data management plan) |
| Task 2 | Review and/or document the process of appropriate control, storage, shipment, and dispensing of investigational products |
| Task 3 | Differentiate the types of adverse event, device effect, and device deficiencies that can occur during clinical trials, and their identification and reporting process |
| Task 4 | Comply with the safety reporting requirements of regulatory agencies both pre- and post-approval |
| Task 5 | Assess compliance and documentation of consent process |
| Task 6 | Verify continuity of medical care is provided for study subjects |
| Task 7 | Identify and/or manage adverse event, adverse device affects, and device deficiencies (e.g., treat subject, adjust treatment based on subject need and protocol) |
| Task 8 | Assess qualifications of the investigational site, site staff, and principal investigator |
| Task 9 | Develop or participate in protocol training |
| Task 10 | Develop or participate in investigational product/device training |
| Task 11 | Identify issues potentially requiring protocol amendments |
| Task 12 | Develop, update, and/or review the instructions for use/IB |
| Task 13 | Develop and/or utilize study device assessment tools (e.g., pacemaker interrogator) |
| Task 14 | Assess investigator/site/subject protocol compliance |
| Task 15 | Conduct initial risk assessment and ongoing risk assessment review |
| Task 16 | Oversee vendors (e.g., core labs, IRB/IEC, technology, subject recruitment, CRO) |
| Task 17 | Collect, maintain, verify, and/or store regulatory essential documents |
| Task 18 | Comply with randomization procedures of investigational product/device |
| Task 19 | Manage investigational product/device recall |
| Task 20 | Identify critical elements of an investigator agreement |
| Knowledge | protocol required control, storage, shipment, and dispensation of investigational products/devices adverse event, device effect, and device deficiencies that occur during clinical trials, and the identification process |



| Content Area IV | IRB/IEC requirements such as submission, review, and approval of documents (e.g., significant risk determination) delegation of responsibilities purpose and use of the instructions for use/IB requirements of indemnification/insurance site selection activities principal investigator responsibilities project feasibility considerations site initiation activities Study and Site Management – 30% |
|-----------------|---|
| | Develop and/or manage resources necessary to conduct a study (the financial, |
| Task 1 | timeline, and cross-disciplinary personnel) |
| Task 2 | Participate in and document the informed consent process(es) |
| Task 3 | Develop, review, and/or implement study plans and/or tools (e.g., subject materials, recruitment plan, lab manuals) |
| Task 4 | Evaluate reasons for subject discontinuation (e.g., causes, contact efforts) |
| Task 5 | Evaluate study for feasibility (e.g., site determining ability to successfully conduct the study) |
| Task 6 | Obtain and/or confirm presence of a signed indemnification/insurance, contracts, and/or budgets |
| Task 7 | Assess protocol compliance (visits, procedures, reporting) |
| Task 8 | Instruct subjects on protocol requirements and assess compliance (e.g., investigational product/device, diaries/logs, visits) |
| Task 9 | Perform and/or verify study device and diagnostic equipment calibration and maintenance |
| Task 10 | Verify appropriate staff, facility, supplies, and equipment availability throughout the study |
| Task 11 | Manage and/or review investigational product/device expiration and/or manage resupply or relabeling |
| Task 12 | Oversee device returns (e.g., unused returns, recalls, explant) |
| Task 13 | Manage device deficiency reporting |
| Task 14 | Record, and/or review data for accuracy and verifiability (e.g., device data transmitted directly, data collection devices) |
| Knowledge | resources necessary/ feasibility to conduct a study (e.g., financial, timeline, and cross-disciplinary personnel) how to assess, manage, and/or report adverse event, device effect, and device deficiencies causality, severity, and relationship to investigational product/device maintenance and use of equipment and supplies investigational product/device accountability and documentation requirements |



| | investigational product/device use (e.g., training, expected side effects, device modification or alterations) investigational product/device reference materials (e.g., instructions for use/IB, user manual) investigational product/device receipt, storage, disposition, returns, and shipment requirements how to assess subject compliance subject responsibilities for study participation vendor management (e.g., labs, IRB/IEC, technology, subject recruitment, CRO) principal investigator oversight requirements subject discontinuation process adverse event, device effect, and device deficiencies oversite (e.g., data safety monitoring board (DSMB), clinical events committee (CEC) | |
|----------------|--|--|
| Content Area V | Scientific Concepts and Research Design – 5% | |
| Task 1 | Evaluate protocol for practicality of execution | |
| Task 2 | Identify and/or implement risk management strategies (e.g., subject, investigational product/device, data handling) | |
| Task 3 | Identify and/or describe study design | |
| Knowledge | elements of an investigational device use (Instructions for Use) and/or Investigational Brochure (IB) risk management strategies and principles (e.g., quality management systems) | |