Vascular Access Certification Corporation (VACC)
Vascular Access Board Certified (VA-BC™) Examination
2025 Job Analysis
Appendix K. Approved Test Specification

Content Area	Percentage Weight	Number of Items
I. Device Assessment and Selection	**14%**	**17**
1. Central venous access devices		
2. Peripheral intravenous devices		
3. Dialysis, apheresis and aquapheresis catheters		
4. Intraosseous devices		
5. Arterial catheters		
6. Pulmonary artery catheters		
7. Device characteristics (e.g. single versus multi-lumen devices, optimal insertion and tip location)		
8. Supplies (e.g. securement device, antimicrobial dressing, needleless connector)		
II. Patient Assessment	**18%**	**23**
1. Patient medical history (e.g. vascular pathology, acute and chronic conditions, comorbidities, laboratory values)		
2. Device applicability (e.g. indications, contraindications, therapy duration, alternatives to IV placement, vesicants and osmolality)		
3. Vessel preservation strategies (e.g. catheter to vein ratio, device performance tracking)		
4. Patient characteristics (e.g. growth and development, cognitive deficit, psychosocial concerns, cultural and religious beliefs, communication needs)		
5. Available resources to maintain devices (e.g. family and community support, supplies)		
6. Imaging technology (e.g. ultrasound, transillumination, fluoroscopy / Computer Tomography [CT] / Magnetic Resonance Imaging [MRI] venogram, chest x-ray)		

III. Preparation	**11%**	**14**
1. Collaboration with patient's care team (e.g. interpreter, child life specialist, case management)		
2. Infection prevention procedures, concepts and principles (e.g. aseptic technique, personal protective equipment [PPE])		
3. Anatomy and physiology (e.g. limb abnormalities, body habitus)		
4. Patient preparation (e.g. consent, reposition, time-out, pre-medication, pain management, sedation, ergonomics)		
IV. Insertion	**11%**	**14**
1. Insertion techniques (e.g. Seldinger, Modified Seldinger, Accelerated Seldinger, Over-the-Wire, Over-the-Needle)		
2. Visualization technology (e.g. ultrasound, infra-red, transillumination)		
3. Tip navigation and location confirmation systems (e.g. ultrasound, fluoroscopy, electrocardiogram [ECG], x-ray, doppler, magnetism)		
4. Complications and emergency interventions (e.g. inadvertent arterial puncture, pneumothorax, catheter tip malposition, nerve injury, anaphylaxis, contamination, wire embolization)		
V. Care and Maintenance	**14%**	**17**
1. Insertion / exit site assessment		
2. Lumen patency and catheter clearance (e.g. flushing technique and protocol)		
3. Infection prevention measures and techniques (e.g. equipment disinfection, needleless connector hygiene, dressing change procedure)		
4. Patient / caregiver education (e.g. device care; infection prevention)		
5. Care plan throughout the healthcare continuum (e.g. catheter insertion information, care and maintenance instructions, patient restrictions)		
6. Vascular access device removal (e.g. length of Peripherally Inserted Central Catheters [PICC], complications, patient tolerance, site care, patient positioning)		
VI. Troubleshooting Complications and Interventions	**16%**	**20**
1. Post-insertion risks and complications (e.g. infiltration, extravasation, thrombosis, catheter tip migration, catheter occlusion, nerve damage, phlebitis, catheter associated blood stream infections [CABSI])		
2. Pharmacologic interventions (e.g. catheter clearance, extravasation treatment, locking solutions - antiseptic, ethanol, anticoagulants)		
3. Catheter repair / exchange		
4. Other complications (e.g. venous occlusion, internal catheter fracture, compromised skin integrity, difficult removal)		

VII. Professional Development and Evidence-Based Practice	**8%**	**10**
1. Evidence-based practice guidelines (e.g. Infusion Nurses Society [INS], Michigan Appropriateness Guide for Intravenous Catheters [MAGIC], Kidney Disease Outcomes Quality Initiative [KDOQI], Society for Healthcare Epidemiology in America [SHEA], Association for Vascular Access [AVA], Canadian Vascular Access Association [CVAA])		
2. Process improvement initiatives and outcome evaluation (e.g. implementation of new techniques, products, emerging technologies)		
3. Professional practice and development (e.g. journal clubs, seminars, webinars, conferences)		
4. Critical analysis of published literature (e.g. research methodologies)		
5. Quality improvement methods (e.g. inclusion of vascular access in unit and hospital wide orientation, root cause analysis, participation in hospital committees - infection control, vascular access, product evaluation)		
6. Staff education and training methods (e.g. assessment of needs and learning style, development of training materials, precepting, mentorship, just-in-time training)		
VIII. Legal and Ethical Considerations	**8%**	**10**
1. Professional codes of conduct, guidelines and standards of care		
2. Legal principles in the practice of vascular access (e.g. liability, malpractice, scope of practice, confidentiality, consent)		
3. Documentation requirements (e.g. routine maintenance, interventions, complications, number of attempts)		
4. Manufacturer's guidelines for product use (e.g. Instructions for Use [IFUs], expiration dates, off-label use)		
5. Patient advocacy		
6. Reporting requirements (e.g. Manufacturer and User Facility Device Experience [MAUDE] database, The Joint Commission [TJC], state health department)		
7. Fiscal responsibility (e.g. accurate recording of charges for reimbursement, judicious use of supplies and equipment, intentional use of time)		
Total	**100%**	**125 items**