Cardiovascular Medicine Fellowship
VAH – CCU

Overall Goal:
- Attain professional, attitudinal, cognitive and technical skills necessary to provide patients with appropriate, technically competent, and kind and compassionate care.

Cardiovascular Medicine Fellowship
Core Competencies for VA CCU Rotation

<table>
<thead>
<tr>
<th>Competency</th>
<th>Required Skill(s)</th>
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<tbody>
<tr>
<td>Patient Care</td>
<td>Evaluation of the cardiac patient (according to New York Heart Association Classification: etiology, anatomy, physiology, cardiac status, diagnostic and therapeutic recommendations)</td>
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<td>Elicitation of physical signs,</td>
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<td>Development of clinical auscultation skills</td>
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<td></td>
<td>Management of stable and unstable angina</td>
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<td>Modification of Coronary Risk Factors</td>
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<td>Management of acute myocardial infarction and its complications</td>
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<td>Cardiac arrhythmia management</td>
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<td>Management of heart failure</td>
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<td>Management of valvular heart disease</td>
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<td>Management of Bacterial Endocarditis</td>
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<td>Management of bradyarrhythmia</td>
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<td>Management of syncope of unknown origin</td>
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<td>Indications for and use of cardiac pacemakers and anti-arrhythmic devices.</td>
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<td>Management of cardiogenic shock</td>
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<td>Management of hypertension</td>
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<td>Management of Tamponade</td>
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Understand:
- The indications for hemodynamic monitoring
- The technical aspects of Swan-Ganz catheter placement
- Interpretation of hemodynamic data (e.g. cardiac output, pulmonary capillary wedge pressure, peripheral vascular resistance determinations)
- Use of intravenous infusions in management of critically ill patients e.g. cardiogenic shock, hypotension, acute myocardial infarction, aortic dissection, acute coronary syndrome.

To include the following:
- Use of intravenous vasodilator therapy e.g. nitrate infusion, nitroprusside infusion
- Use of intravenous inotropic agents e.g. dobutamine, dopamine, milrinone etc.
- Use of thrombolytic agents in the setting of acute myocardial infarction
- Use of intravenous IIb/IIIa platelet receptor inhibitors e.g. iptefibatide, tirofiban, Reopro.
- The indications for and use of telemetry EKG recorders
- The need for two or three channel EKG recording
- The fundamentals of arrhythmia interpretation from EKG rhythm strips
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| and telemetry. | - EKG recognition of common heart rhythm abnormalities including  
| |   - First, second and third degree SA block  
| |   - First second and third degree AV block  
| |   - Sinus arrhythmia  
| |   - Sinus bradycardia  
| |   - Wandering atrial pacemaker  
| |   - Atrial tachycardia  
| |   - Multifocal atrial tachycardia  
| |   - Paroxysmal supraventricular tachycardia  
| |   - AV nodal re-entrant tachycardia  
| |   - AV re-entrant tachycardia (pre-excitation syndrome)  
| |   - Atrial Fibrillation  
| |   - Atrial Flutter  
| |   - Junctional escape rhythm  
| |   - Accelerated junctional escape rhythm  
| |   - Ventricular escape rhythm  
| |   - Wide QRS tachycardia  
| |   - Ventricular tachycardia  
| |   - Torsade de Pointes  
| |   - Ventricular Fibrillation  
| |   - Ventricular parasystole  
| |   - Paced rhythms (atrial, ventricular and AV sequential)  
| |   - Extrasystoles (atrial, junctional, ventricular)  
| |   - Digoxin /drug induced arrhythmias  
| |   - Blocked extrasystoles  
| | - To assess artefact on EKG recordings.  
| | - To learn the fundamentals of EKG interpretation from the 12-lead EKG |

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| - Demonstrate understanding of the clinical and basic science underlying the practice of cardiovascular medicine.  
| - Demonstrate application of knowledge to the care of patients with Cardiovascular diseases, patient education, family education, and education of other members of the health care team  
| - Understand the pathogenesis, pathophysiology, epidemiology, historical issues, physical findings, test utilization (including relative sensitivity and specificity and likelihood ratios), means of confirming a diagnosis, indications for cardiac catheterization procedures, techniques of cardiac catheterization, treatment of patients undergoing cardiac catheterization, complications of cardiac catheterization, monitoring of patients undergoing cardiac catheterization, and principles of post-cardiac catheterization care, and indications for referral for cardiac surgery.  
<p>| - Incorporation into practice the following areas: ethics, psychology, medical-legal issues, medical economics, managed care, public health, family and societal violence, AODA issues, informatics, record keeping, quality assurance, risk management, and relevant areas of non cardiovascular medicine related specialties. |</p>
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| **Interpersonal and Communication Skills** | ▪ Demonstration of effective written, verbal and non-verbal communication when participating in patient care, collaborating with colleagues and co-workers, and teaching and presenting in the academic center, and during information exchange and collaboration with patients and their loved ones.  
  ▪ Demonstration of effective listening skills, and understanding of patients needs  
  ▪ Creation of a therapeutic relationship with patients by using effective communication skills, interpretable language, active and responsive listening, patient education, counseling, and assisting other professionals to do the best job possible for patients of common concern  
  ▪ Development of ability to define leadership skills and qualities as well as strengths and weaknesses of leadership style  
  ▪ Understanding of how to alter communications skills to be more effective leader  
  ▪ Understanding of perceptions of others, a development of ability to modulate behavior so that others perceptions are in a more positive light.  
  ▪ Use of communications skills to help self and others find motivation, be optimistic, and create a positive environment with emphasis on instilling hope in patients and their loved ones.                                                                                                                                                                                                                       |
| **Systems-Based Practice**        | ▪ Development of understanding of the organization, financing and delivery of health care in the VA system, with particular respect to the cardiovascular disease  
  ▪ Recognition of potential threats to professionalism posed by conflicts of interest imposed by financial or organizational restrictions or arrangements within the VA system.  
  ▪ Development of vision to use new developments in technology and information systems available at the VA hospital to manage and problem solve and make decisions relevant to the efficient and effective medical care of patients with cardiovascular disease.  
  ▪ Understanding of the context of practice in the VA system, the interdependence of patient care provided by the VA, and that provided by others and by society at large.  
  ▪ Application of knowledge to improve the care of patients in the VA system  
  ▪ Learn means of application of systematic and cost-effective strategies to best diagnose and treat patients with cardiovascular diseases  
  ▪ Learn how to collaborate with other team members and patients and their families to co-ordinate care, to assist patients in dealing with the complex VA Health Care system, and to improve systematic processes of care in an effort to improve outcomes                                                                                                                                                                                                 |
| **Professionalism**               | ▪ Demonstration that actions serve the interests of patients above physician self-interest  
  ▪ Exhibition of altruism, accountability, reliability, courtesy, sensitivity, integrity, and respect for others  
  ▪ Demonstration of pursuit of continuous professional development  
  ▪ Responsiveness to needs of patients and society  
  ▪ Demonstration of empathic attitude that leads to action to reduce the suffering of others  
  ▪ Effective interactions with other members of ward/consult team                                                                                                                                                                                                                                                                                                                                 |