

# **Cardiology A3S**

Learning Venue: Cardiology Outpatient Clinics

#### A. MEDICAL EXPERT

## 1. Medical History

Elicit a concise, accurate and relevant history appropriate to the patient's cardiac problem presenting in the outpatient setting with special emphasis on the evaluation of common cardiac symptoms such as chest pain, shortness of breath and palpitations. Cardiac risk factor assessment and obtain history of exposure to alcohol, drug abuse and other cardiotoxins. Evaluate functional status. Elicit history for rheumatic fever and any known congenital abnormalities.

## 2. Physical Examination

Perform a physical examination that is relevant and appropriate to the presentation including a full cardiac examination with special emphasis on the examination of jugular venous pulse and pressure, appreciation of arterial pulse abnormalities and identification of common valvular and congenital lesions such as aortic stenosis/regurgitation, mitral regurgitation and septal defects.

## 3. Diagnostic Tests

Select appropriate laboratory and diagnostic imaging tests (e.g.: Chest X Rays, ECG's, echocardiography, CT scan) to diagnose chronic cardiac problems such as chronic coronary artery disease, congestive heart failure, valvular heart disease, common cardiac arrhythmias and to rule out non cardiac pathology.

## 4. Clinical Diagnosis/Decision

Analyze, synthesize, and integrate all relevant data to formulate a rational and effective working diagnosis and further investigation and therapeutic strategy for the patient's illness.

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#### 5. Documentation/Presentation

Document well-organized, complete, and legible histories and physical examinations, assessments and proposed plans of management in the written medical record.

Deliver well-organized, precise, clear, and coherent oral presentations of the patient's history and physical examination.

#### 6. Procedural Skills

There are no specific procedural skills to this rotation.

## 7. Medical Knowledge

- Develop familiarity and understanding of etiology, epidemiology, pathogenesis, clinical features, diagnostic tests, and treatment of:
  - chronic stable coronary artery disease
  - congestive heart failure with understanding of systolic vs. diastolic heart failure
  - commonly presenting arrhythmias such as atrial fibrillation, atrial flutter and ventricular tachycardia
  - common forms of valvular and congenital heart disease
- Acquire a knowledge of cardiac risk factors
- Develop a basic understanding of common cardiac investigations applicable to evaluate acute and chronic cardiac problems and tools for risk stratification
  - ECG interpretation
  - indications for exercise stress testing (EST) and basic interpretation of EST results
  - basic interpretation of wall motion studies and stress perfusion scanning test results
  - role of echocardiography in delineating cardiac function, structure and pathology
  - basic understanding of the role of cardiac catheterization as a tool to diagnose heart disease.
- Develop an understanding of the principles of basic pharmacotherapy and to acquire knowledge of indications, dosing and side effects of common pharmacological agents used in the treatment of cardiac diseases:
  - anti-platelet agents
  - anti-thrombotic agents
  - anti-ischemic agents

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- Angiotensin converting enzyme inhibitors and angiotensin receptor blocking agents
- lipid lowering agents
- diuretics
- pharmacotherapy of congestive heart failure specific medication
- Understand the differences and appropriateness of invasive vs. non invasive management
- Develop an understanding of the role of non pharmacological intervention in cardiac diseases such as cessation of cigarette smoking, weight reduction, exercise and cardiac rehabilitation
- Evidence-based Practice: Apply evidence-based investigative strategies and treatments to the management of the patient with cardiac disorders.

#### **B. COMMUNICATOR**

- 1. Verbal communication
  - Patients/Families

Establish and maintain the rapport required to elicit a detailed history, including issues that may be of a sensitive nature. Be aware of age, ethnic, gender, spiritual, and cultural differences and values, as well as differing definitions of family.

Be sensitive to the confidentiality and privacy concerns of patient and family and develop a respectful and trusting relationship that will facilitate an effective management plan to meet the patient's goals and expectations. Use terminology and language that the patient and family will understand. Listen effectively and respond appropriately to concerns.

Consulting Physicians/Service/Team:

Communicate clearly, concisely, and in a timely manner with attending and other physicians and members of the cardiac team in order to effect an appropriate diagnostic and treatment plan.

Other Health Care Professionals:

Communicate in a timely and professional manner with other health care professionals in order to acquire collateral and/or additional information about the patient's condition and to develop and implement a treatment plan. Communicate with other health professionals in a manner that facilitates the delivery of consistent messages to the patients and their families.

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#### 2. Written communication

#### Initial assessment:

Provide a comprehensive, but succinct, legible written summary of the history and physical examination, and of the proposed management plan for review and endorsement by the senior members of the attending team.

Communication with the referring physician

Write a concise and informative letter outlining the history, physical findings, assessment and a plan of further investigations and management to the referring physicians.

### C. COLLABORATOR

#### 1. Patients/Families

Develop a collaborative relationship with patients and families, recognizing their important roles in decision-making and treatment adherence. Enlist the participation of patients and their families in their care, including education about their illness and its management.

#### 2. Other Health Professionals

Establish and maintain respectful working relationships with other physicians and health professionals, nursing and other clinic staff, recognizing the unique and essential skills that they bring to the care and education of patients and their families. Demonstrate the ability to consider, accept and respect the opinions of other health professionals.

#### D. MANAGER

Develop an understanding of the structure of the health care system to understand how care is financed and organized. Work effectively and efficiently in a health care organization. Make appropriate, efficient and judicious use of health care resources. Consider the pre-test probability of disease when ordering diagnostic tests. Understand the likely cost-effectiveness of treatment strategies. Utilize information technology to optimize patient care, life-long learning and other activities. Practice time management skills including punctuality, prioritization and triage. Maintain a balance of work and personal activities.

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#### E. SCHOLAR

## 1. Self-directed Learning

Utilize textbooks, journals, and other learning tools as suggested by attending staff and colleagues. Independently seek information around patient problems prior to presenting at rounds. Begin to develop a personal continuing education strategy to maintain and advance professional competence.

## 2. Critical Appraisal Skills

Be able to critically appraise studies reported in the medical literature in terms of validity and applicability.

# 3. Teaching/Supervisory Skills

Facilitate and contribute to the learning of patients, house staff, students, attending staff, and other health professionals. Provide constructive feedback.

## 4. Scholarly Activity

Develop literature search abilities.

## F. HEALTH ADVOCATE

- 1. Educate patients and families on healthy behaviors, secondary prevention and risk factor modification.
- 2. Knowledge/Promotion of Available Resources

Be aware of local and national, private and public sources of information and other resources and share this with patients, families, and other health professionals.

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## **G. PROFESSIONAL**

#### 1. Attitudes, Values, Behaviors

Deliver the highest quality care with integrity, honesty, and compassion. Recognize the responsibility a physician has for the patient's care. Exhibit proper personal and interpersonal professional behaviors. Adopt specific strategies to heighten personal and professional awareness and explore and resolve interpersonal difficulties in professional relationships. Demonstrate flexibility and willingness to adjust to changing circumstances.

## 2. Ethical Practice

Practice medicine ethically, being consistent with the obligations of a physician. Know and understand the professional, legal and ethical codes to which physicians are bound; these include issues of confidentiality and consent. Demonstrate appropriate conduct when interacting with industry, recognize, analyze and attempt to resolve in clinical practice ethical issues such as honesty, reliability, informed consent, confidentiality, and resource allocation.

## 3. Self-assessment Skills

Demonstrate insight into limitations of knowledge. Use appropriate strategies to maintain and advance professional competence. Evaluate continually one's abilities, knowledge and skills, know one's limitations of professional competence and exhibit a willingness to call upon others with special expertise whenever appropriate. Be responsive to constructive feedback when errors in diagnosis or treatment are identified.