



Endocarditis FocusClass

Designed to provide in-depth understanding and practical insights, this course is essential for healthcare professionals who want to sharpen their diagnostic skills in cardiac care. Our expert instructors cover a wide array of subjects through engaging lectures and real-world examples, including Introduction to Endocarditis, Native Valve Endocarditis, Complications of Endocarditis, Right Heart Endocarditis, Prosthetic Valve Endocarditis, Pacemaker and Central Line Endocarditis, Non-Bacterial Endocarditis, and Guiding Patient Management. This course is also included in Echo MasterClass.

4
CME credits

10
Chapters

50
Lectures

9
Quizzes

Chapter 1 | CME

Free lectures

Lectures & Quizzes:

- Free lecture 1
- Free lecture 2
- Free lecture 3

Chapter 2 | 0.75 CME

Overview and Basics

In this chapter, we will introduce the critical subject of endocarditis, a condition with significant consequences for patient health. We'll explore the scope of the problem, emphasizing that endocarditis is often associated with high mortality. The discussion will examine why certain individuals are at greater risk than others, along with an overview of the specific heart structures that may be affected. By delving into the pathophysiology of endocarditis, we'll gain insights into how vegetations form and identify the predisposing factors that contribute to this condition. This chapter will also address the vital roles of echocardiography and other imaging techniques in diagnosing endocarditis and discuss the Duke Criteria. Finally, we will clarify the circumstances in which antibiotic prophylaxis is an appropriate treatment strategy.

Lectures & Quizzes:

- Definition and Epidemiology
- Clinical Manifestations
- Pathophysiology
- Microbiology
- Manifestation
- Diagnosis - Role of Echocardiography
- Other Imaging Modalities
- Mortality and Risk
- Prevention
- EFC - Overview and Basics

Native Valve Endocarditis

This chapter will focus specifically on native valve endocarditis, a complex yet essential subject. You'll learn about the valves most commonly affected and discover the distinctions between community-acquired and hospital-acquired endocarditis. This section will also provide a concise overview of potential complications and key findings that you can identify using echocardiography. This subject will be further explored in the next chapter. We'll delve into some diagnostic challenges, including conditions that may resemble endocarditis on an echocardiogram, and discuss why fungal endocarditis is considered such a devastating condition. This chapter contains practical examples that highlight critical teaching points, enhancing your understanding of this significant topic.

Lectures & Quizzes:

- Location / Classification
- Diagnostic Challenges / Scenarios
- Fungal Endocarditis
- Differential Diagnosis
- Your turn to diagnose endocarditis!
- Associated Findings
- EFC - Native valve Endocarditis

Complications of Native Valve Endocarditis

Endocarditis often destroys cardiac tissues, resulting in a broad range of complications for patients. In this chapter, we'll classify and define these various complications, using numerous case examples to illustrate the potential problems. Specifically, you'll learn about septic embolism, including how to assess the risk for this condition. We'll also explore the issues related to valvular destruction, focusing on the problem of valvular regurgitation. Further, we'll discuss paravalvular abscesses involving both the aortic and mitral valves and delve into pseudoaneurysms and fistulas. By presenting these topics clearly and with real-world examples, this chapter aims to enrich your understanding of the multifaceted challenges of endocarditis.

Lectures & Quizzes:

- Overview
- Septic Embolism
- Valvular Destruction
- Regurgitation
- Paravalvular Complications
- EFC - Complications of Native Valve Endocarditis

Right Heart Endocarditis

Right heart endocarditis has unique presentations and sequelae compared to other forms of endocarditis, necessitating special attention. In this chapter, you will learn how to recognize signs of endocarditis and understand associated risk factors. We will guide you on how to image the tricuspid valve to detect vegetations, an essential aspect of diagnosis. Numerous case examples will illustrate the diverse spectrum of right heart endocarditis, enhancing your understanding of this complex condition. Furthermore, this chapter will explore therapeutic options, providing a comprehensive overview of both diagnostic and treatment aspects of right heart endocarditis.

Lectures & Quizzes:

- Basics
- Imaging
- Examples
- Management
- EFC - Right Heart Endocarditis

Chapter 6 | 0.5 CME

Prosthetic Valve Endocarditis

Prosthetic valve endocarditis is a serious condition with a high complication rate and significant mortality. This chapter will discuss the classification of this disease, as well as why diagnosis can be difficult. Transesophageal Echocardiography (TEE) is often necessary to accurately diagnose the condition. Additionally, there are various conditions that can mimic prosthetic valve endocarditis, making it challenging to detect. This section includes examples and case studies that demonstrate the different manifestations and complications, such as prosthetic valve abscess, valve dehiscence, valve obstruction, pseudoaneurysm, and fistulas. This comprehensive coverage will enhance your understanding and clinical acumen regarding this critical cardiac issue.

Lectures & Quizzes:

- Facts
- Classification
- Diagnostic Challenges
- Differential Diagnosis
- Examples
- Complications - Part 1
- Complications - Part 2
- TAVI Endocarditis
- EFC - Prosthetic Valve Endocarditis

Chapter 7 | 0.5 CME

Pacemaker and Central Line Endocarditis

Pacemaker and central line endocarditis pose a growing problem that requires attention. This chapter explores why individuals with these devices are at an elevated risk of infection and explain the underlying mechanisms that lead to endocarditis. The diagnosis process using echocardiography is discussed, with numerous case examples illustrating how endocarditis can affect both pacemaker leads and central venous lines. Management strategies utilizing the most recent guidelines are presented. This chapter aims to equip you with the knowledge you need to effectively address this emerging challenge by providing insights into the clinical aspects and the latest approaches to care.

Lectures & Quizzes:

- Pacemaker Endocarditis Basics
- Presentation + Risk factors
- Case Examples
- Management
- CVL Endocarditis - Basics
- CVL Endocarditis - Case Examples / Prevention
- EFC - Pacemaker and Central venous lines

Chapter 8 | 0.25 CME

Non-Infective Endocarditis

If you discover a structure on a heart valve without any signs of infection, it's important to consider the possibility of non-bacterial endocarditis. This chapter explores which patients are most likely to develop this condition, the valves that are typically affected, and the specific ways in which these patients may present symptoms. Various case examples are provided to enhance understanding of this unique and important aspect of cardiac care.

Lectures & Quizzes:

- Overview
- Case Examples
- EFC - Non-bacterial Endocarditis

Chapter 9 | 0.5 CME

Management of IE

As an echocardiographer, your role is crucial not only in diagnosing endocarditis but also in guiding decisions on patient management. This chapter explains various therapeutic strategies based on the most recent guidelines for endocarditis, with a focus on determining whether a surgical approach is appropriate for individual cases. Using real-world case examples, this chapter provides practical insights into the application of these strategies, allowing you to translate this knowledge into patient care.

Lectures & Quizzes:

- Principles
- Indications for Surgery
- Antibiotics
- Guidelines
- Case Examples
- EFC - Management of IE

Chapter 10 | 0.25 CME

Summary

In this section, we provide a concise overview of the main takeaways from the chapter. This summary will assist you in enhancing and solidifying your comprehension of this crucial topic.

Lectures & Quizzes:

- Putting it all together
- Reporting
- EFC - Summary