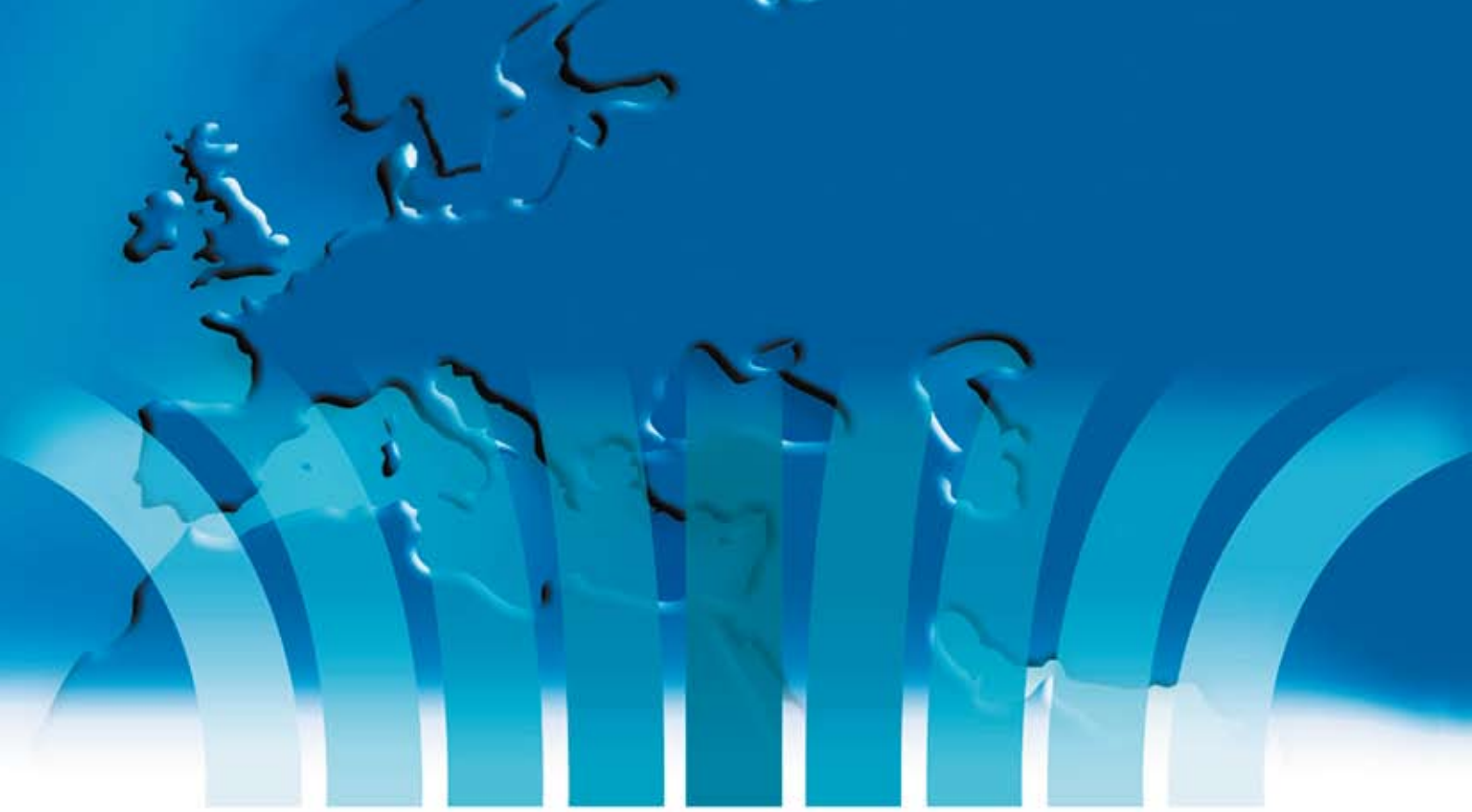

ESSENTIAL MESSAGES FROM ESC GUIDELINES

Committee for Practice Guidelines
To improve the quality of clinical practice and patient care in Europe

INFECTIVE ENDOCARDITIS

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EUROPEAN SOCIETY OF CARDIOLOGY®

ESC ESSENTIAL MESSAGES

ESC GUIDELINES ON THE PREVENTION, DIAGNOSIS AND TREATMENT OF INFECTIVE ENDOCARDITIS (NEW VERSION 2009)*

The Task Force on the Prevention, Diagnosis and Treatment of Infective Endocarditis of the European Society of Cardiology (ESC), endorsed by the European Society of Clinical Microbiology, Infectious Diseases (ESCMID) and by the International Society of Chemotherapy (ISC) for Infection and Cancer

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2009 ESC GUIDELINES ON THE PREVENTION, DIAGNOSIS AND TREATMENT OF INFECTIVE ENDOCARDITIS

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European Heart journal 2009;30:2369-2413
Doi:10.1093/eurheartj/ehp285

Take home messages

1. Infective endocarditis (IE) is still associated with a high mortality (10-26% in-hospital mortality).

2. IE is a rare disease, with reported incidences ranging from 3 to 10 episodes/100,000 people per year.

3. The epidemiological profile of IE has changed over the last few years, with newer predisposing factors – valve prostheses, degenerative valve sclerosis, intravenous drug abuse (IVDA), and increased use of invasive procedures at risk for bacteraemia. This justifies aseptic measures during venous catheters manipulation and during any invasive procedures.

4. Antibiotic prophylaxis is recommended only for patients with the highest risk of IE undergoing the highest risk dental procedures. Good oral hygiene and regular dental review have a very important role in reducing the risk of IE.

5. Diagnosis of IE is frequently difficult, particularly in patients with prosthetic valve IE [PVE], intracardiac devices, or blood-culture negative IE [BCNIE]. The Duke criteria are useful for the classification of IE, but do not replace clinical judgment.

6. Echocardiography and blood cultures are the cornerstone of diagnosis of IE. TTE must be performed first, but both TTE and TEE should ultimately be performed in the majority of cases of suspected or definite IE.

7. Prognostic assessment at admission is crucial for the choice of the optimal therapeutic strategy. It can be performed using simple clinical, microbiological, and echocardiographic parameters.

8. Prolonged therapy with a combination of bactericidal drugs is the basis of IE treatment. Drug treatment of PVE should last longer (at least 6 weeks) than that of native valve endocarditis (NVE) (2-6 weeks).

9. The 3 main complications of IE indicating early surgery are heart failure (HF), uncontrolled infection, and embolic events.

10. HF is the most frequent and severe complication of IE. Unless severe comorbidity exists, the presence of HF is an indication for early surgery.

Take home messages

11. Uncontrolled infection is most frequently related to perivalvular extension or "difficult-to-treat" organisms. Unless severe comorbidity exists, the presence of locally uncontrolled infection is an indication for early surgery.

12. Embolism is very frequent in IE, complicating 20-50% of cases of IE. The risk of embolism is related to the size and mobility of the vegetation and is highest during the first two weeks of antibiotic therapy.

13. Neurological events develop in 20-40% of all patients with IE and are mainly the consequence of embolism. After an ischaemic stroke, cardiac surgery is not contraindicated unless the neurological prognosis is judged to be poor.

14. Cardiac device-related IE (CDRIE) is difficult to diagnose, and must be treated by prolonged antibiotic therapy and device removal.

Major gaps in evidence

1. The current guidelines are largely based on expert opinion because of the low incidence of the disease, the absence of randomised trials, and the limited number of meta-analyses. Thus, the levels of evidence of current recommendations are low.

2. The microbiological profile in IE is changing and may vary from one country to another. These variations must be taken into account when applying guidelines in a given country.

3. The concept of antibiotic prophylaxis during procedures at-risk is not evidence-based. A randomised controlled trial should be necessary to prove the effectiveness of prophylaxis.

4. The proposed reduction of antibiotic prophylaxis is not evidence-based, but reflects an expert consensus opinion. Epidemiological surveys must be done to monitor the potential consequences of guideline modifications on IE epidemiology.

5. The exact role of molecular biology techniques in the diagnosis and management of IE is still to be defined.

6. The optimal duration of antibiotic therapy after surgery for active IE is unclear.

7. Due to the lack of large series, optimal duration of antibiotic therapy in IE due to rare pathogens causing BCNIE is unknown.

8. The effect of early surgery on prognosis is still debated.

9. The indications of surgery after a cerebral event are still debated. Evidence regarding the optimal time interval between stroke and cardiac surgery is conflicting because of lack of controlled studies.

10. The recommendations for the management of the anticoagulant therapy during IE are based on low level of evidence.

11. Data concerning IE in congenital heart disease are scarce and frequently associated with a selection bias.

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