

Additional educational resources

Horstkotte D, Follath F, Gutschik E, Lengyel M, Oto A, Pavie A, et al. Guidelines on prevention, diagnosis and treatment of infective endocarditis: executive summary. *Eur Heart J* 2004;25:267-76 (www.escardio.org/knowledge/guidelines/)—A comprehensive document covering all aspects of the investigation and management of infective endocarditis

Baddour LM, Wilson WR, Bayer AS, Fowler VG Jr, Bolger AF, Levison ME, et al. Infective endocarditis: diagnosis, antimicrobial therapy, and management of complications. (circ.ahajournals.org/cgi/content/full/111/23/e394)—Up to date American Heart Association guidelines on the management of endocarditis

British National Formulary (www.bnf.org)—Detailed explanation of current prophylaxis recommendations
International Collaboration on Endocarditis (endocarditis.org/ice/index.html)

Information for patients

American Heart Association patient information sheet (www.americanheart.org/presenter.jhtml?identifier=4436)—A good basic guide written for non-medical personnel

American National Institute for Health information sheet (www.nlm.nih.gov/medlineplus/ency/article/000681.htm)—A brief description of infective endocarditis from a patient's perspective

Patient UK (www.patient.co.uk/showdoc/27000162/)—A simple description of infective endocarditis from a UK based site (partially funded by advertisements)

sites in 16 countries, the initial merger of existing databases has yielded a primary group of 2200 well characterised patients with definite infective endocarditis by the Duke criteria, allowing the assessment of regional differences in presentation and outcome. Indeed, analysis of the dataset has already enabled valuable insight into emerging epidemiological patterns of the disease and its clinical presentation.^{w18-w21} In future, this platform will provide the basis for sorely needed adequately sized randomised clinical trials in the management and treatment of infective endocarditis.^{w22 w23}

The future

Several exciting developments offer the prospect of improved prevention and treatment of infective endocarditis. Vaccines targeted at specific bacterial adhesins may inhibit valve colonisation, and newer antibacterial agents with novel effects may attenuate the invasive properties of virulent organisms such as *Staph aureus*.¹ Finally, modified biomaterials in development may reduce the risk of infective endocarditis in patients with artificial heart valves or other intracardiac prosthetic material. However, despite these advances, the diagnosis and management of infective endocarditis remain a considerable challenge across the range of medical disciplines.

Contributors: The *BMJ* approached BDP to write the review. RPB compiled the first draft, and BDP revised it. VKB read the paper to ensure accuracy from an Indian perspective.

Competing interests: None declared.

1 Prendergast BD. The changing face of infective endocarditis. *Heart* 2006;92:879-85.

- 2 Cabell CH, Jollis JG, Peterson GE, Corey GR, Anderson DJ, Sexton DJ, et al. Changing patient characteristics and the effect on mortality in endocarditis. *Arch Intern Med* 2002;162:90-4.
- 3 Garg N, Kandpal B, Garg N, Tewari S, Kapoor A, Goel P, et al. Characteristics of infective endocarditis in a developing country—clinical profile and outcome in 192 Indian patients, 1992-2001. *Int J Cardiol* 2005;98:253-60.
- 4 Horstkotte D, Follath F, Gutschik E, Lengyel M, Oto A, Pavie A, et al. Guidelines on prevention, diagnosis and treatment of infective endocarditis: executive summary. *Eur Heart J* 2004;25:267-76.
- 5 Baddour LM, Wilson WR, Bayer AS, Fowler VG Jr, Bolger AF, Levison ME, et al. Infective endocarditis: diagnosis, antimicrobial therapy, and management of complications: a statement for healthcare professionals from the Committee on Rheumatic Fever, Endocarditis, and Kawasaki Disease, Council on Cardiovascular Disease in the Young, and the Councils on Clinical Cardiology, Stroke, and Cardiovascular Surgery and Anesthesia, American Heart Association: endorsed by the Infectious Diseases Society of America. *Circulation* 2005;111:e394-434.
- 6 Mylonakis E, Calderwood SB. Infective endocarditis in adults. *N Engl J Med* 2001;345:1318-30.
- 7 Hoen B, Alla F, Selton-Suty C, Beguinot I, Bouvet A, Briancon S, et al. Changing profile of infective endocarditis: results of a 1-year survey in France. *JAMA* 2002;288:75-81.
- 8 Bouza E, Menasalvas A, Munoz P, Vassallo FJ, del Mar Moreno M, Garcia Fernandez MA. Infective endocarditis—a prospective study at the end of the twentieth century: new predisposing conditions, new etiologic agents, and still a high mortality. *Medicine (Baltimore)* 2001;80:298-307.
- 9 Moreillon P, Que YA. Infective endocarditis. *Lancet* 2004;363:139-49.
- 10 Hoen B, Selton-Suty C, Lacassin F, Etienne J, Briancon S, Lepout C, et al. Infective endocarditis in patients with negative blood cultures: analysis of 88 cases from a one-year nationwide survey in France. *Clin Infect Dis* 1995;20:501-6.
- 11 Lisby G, Gutschik E, Durack DT. Molecular methods for diagnosis of infective endocarditis. *Infect Dis Clin North Am* 2002;16:393-412, x.
- 12 Greaves K, Mou D, Patel A, Celermajer DS. Clinical criteria and the appropriate use of transthoracic echocardiography for the exclusion of infective endocarditis. *Heart* 2003;89:273-5.
- 13 Durack DT, Lukes AS, Bright DK. New criteria for diagnosis of infective endocarditis: utilization of specific echocardiographic findings. *Am J Med* 1994;96:200-9.
- 14 Li JS, Sexton DJ, Mick N, Nettles R, Fowler VG Jr, Ryan T, et al. Proposed modifications to the Duke criteria for the diagnosis of infective endocarditis. *Clin Infect Dis* 2000;30:633-8.
- 15 Elliott TS, Fowleraker J, Gould FK, Perry JD, Sandoe JA. Guidelines for the antibiotic treatment of endocarditis in adults: report of the working party of the British Society for Antimicrobial Chemotherapy. *J Antimicrob Chemother* 2004;54:971-81.
- 16 Olaison L, Pettersson G. Current best practices and guidelines indications for surgical intervention in infective endocarditis. *Infect Dis Clin North Am* 2002;16:453-75, xi.
- 17 Tornos P, Iung B, Permanyer-Miralda G, Baron G, Delahaye F, Gohlke-Barwolf C, et al. Infective endocarditis in Europe: lessons from the Euro heart survey. *Heart* 2005;91:571-5.
- 18 Ramsdale DR, Turner-Stokes L. Prophylaxis and treatment of infective endocarditis in adults: a concise guide. *Clin Med* 2004;4:545-50.
- 19 Gould FK, Elliott TS, Fowleraker J, Fulford M, Perry JD, Roberts GJ, et al. Guidelines for the prevention of endocarditis: report of the working party of the British Society for Antimicrobial Chemotherapy. *J Antimicrob Chemother* 2006;57:1035-42.
- 20 Cabell CH, Abrutyn E. Progress toward a global understanding of infective endocarditis: lessons from the International Collaboration on Endocarditis. *Cardiol Clin* 2003;21:147-58.

(Accepted 30 June 2006)

Corrections and clarifications

Pressure relieving support surfaces (PRESSURE) trial: cost effectiveness analysis

This research article by Cynthia Iglesias and colleagues (*BMJ* 2006;332:1416-8, 17 Jun) should have included the trial registration identifier Current Controlled Trials ISRCTN78646179.

Correction for Nixon et al

In the correction (*BMJ* 2006;333:30, 1 Jul) to the article "Randomised, controlled trial of alternating pressure mattresses compared with alternating pressure overlays for the prevention of pressure ulcers: PRESSURE (pressure relieving support surfaces) trial" (*BMJ* 2006;332 1413-5, 17 Jun), we incorrectly referred to haemoglobin levels rather than odds ratios. We should have said: "In table 4 of the full version on bmj.com (table 2 of the abridged version), the odds ratio for haemoglobin levels on admission or preoperatively should be 0.89 (0.82 to 0.97), and the corresponding P value should be 0.01."