

The increasing incidence of infective endocarditis in the UK and patients' changing risk

Pier P Bassareo¹

Kevin Walsh¹

Author details can be found at the end of this article

Correspondence to:

Pier P Bassareo;
piercard@inwind.it

Sir,

In the editorial by Daver et al (<https://doi.org/10.12968/hmed.2020.0263>) discussing the raised incidence of infective endocarditis in the UK, the 2008 change in the National Institute of Health and Care Excellence guidelines, an improved diagnostic accuracy, and an increase in device implantation and use of prosthetic material in congenital heart disease were identified as possible causes.

The National Institute of Health and Care Excellence (2008) advice against any antibiotic prophylaxis, whatever the patient's risk, certainly played an important role, although in the updated 2016 guidance the word 'any' was replaced with 'routinely', implying that antibiotic prophylaxis may be appropriate in individual cases.

Conversely, the American and European guidelines identified 'high-risk' patients for whom antibiotic prophylaxis is indicated only in the case of invasive dental procedures (Wilson et al, 2007; Habib et al, 2009).

Furthermore, other factors should be considered. First, while antibiotic prophylaxis for high risk patients seems to be reasonable, patients at 'moderate risk' are not without any risks, as testified by their increased susceptibility to infective endocarditis. Second, unpredictable fluctuations in the immune system may also explain why antibiotic prophylaxis may work or not in the same patient and situation, but at different times in their life (Calcaterra et al, 2019). The immune system response tends to reduce with comorbidities like diabetes or with time, and the highest rates of infective endocarditis are seen in subjects aged over 60 years (immune-senescence).

In short, the increased incidence of infective endocarditis in the UK, as well as in the rest of the world, results from a complex interplay. A personalised approach would be appropriate when prescribing antibiotic prophylaxis. At some point in their life, patients deemed low or moderate risk may become susceptible to infective endocarditis.

Author details

¹Mater Misericordiae University Hospital and Our Lady's Children's Hospital Crumlin, University College of Dublin, Dublin, Republic of Ireland

References

- Calcaterra G, Crisafulli A, Guccione P, di Salvo G, Bassareo PP. Infective endocarditis triangle. Is it the time to revisit infective endocarditis susceptibility and indications for its antibiotic prophylaxis? *Eur J Prev Cardiol.* 2019;26(16):1771–1774. <https://doi.org/10.1177/2047487319856126>
- Habib G, Hoen B, Tornos P et al. 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 and Infectious Diseases (ESCMID) and the International Society of Chemotherapy (ISC) for Infection and Cancer. *Eur Heart J.* 2009;30(19):2369–2413. <https://doi.org/10.1093/eurheartj/ehp285>
- National Institute for Health and Care Excellence. Prophylaxis against infective endocarditis. Clinical Guideline CG64. 2008. <http://www.nice.org.uk/guidance/cg64> (accessed 16 November 2020)
- Wilson W, Taubert KA, Gewitz M et al. Prevention of infective endocarditis: guidelines from the American Heart Association: a guideline from the American Heart Association Rheumatic Fever, Endocarditis, and Kawasaki Disease Committee, Council on Cardiovascular Disease in the Young, and the Council on Clinical Cardiology, Council on Cardiovascular Surgery and Anesthesia, and the Quality of Care and Outcomes Research Interdisciplinary Working Group. *Circulation.* 2007;116(15):1736–1754. <https://doi.org/10.1161/CIRCULATIONAHA.106.183095>

How to cite this article:

Bassareo PP, Walsh K. The increasing incidence of infective endocarditis in the UK and patients' changing risk. *Br J Hosp Med.* 2020. <https://doi.org/10.12968/hmed.2020.0597>