LETTERS TO THE EDITOR

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PROPHYLAXIS GUIDELINES

Repeated points

Erratum

This is the correct, full version of the letter published in the 8 April 2016 issue of the BDJ *(2016;* **220:** *324). We apologise to Dr Phil Alderson and Professor Mark Baker for our administrative error.*

Sir, the article by Thornhill and colleagues[1] compared the differing guidelines from NICE[2] and the European Society of Cardiology[3] on antibiotic prophylaxis for infective endocarditis (IE).

Unfortunately, they are not accurate in their representation of the NICE process and uncritically re-present data from their own analyses previously published in the *Lancet*,[4] recommending that practitioners should present a summary of the *Lancet* data as an aid to decision making for patients.

The NICE process carefully considered both evidence of the effectiveness of policies of antibiotic prophylaxis and the evidence for the logical case underpinning such a policy. This is discussed in detail in the guideline report. This was then subjected to public consultation and the comments and responses are documented on NICE's website. Thornhill and colleagues repeat comments made in consultation, but do not acknowledge the responses that NICE have already made. They repeat a claim that NICE has stated it will not update the guidelines without a randomised controlled trial: this is not true, and readers will note that this update was triggered by the need to consider evidence from an observational interrupted time series.

Thornhill *et al.*'s proposal relies very heavily on the data from the work he and colleagues published in the *Lancet*. This paper was very carefully considered by the NICE committee and a review of the methods requested from a recognised independent expert in the field. There is clearly an increasing incidence of IE (unadjusted for age or other demographic factors) that has been present for many years. The *Lancet* paper examined a hypothesis that there was a single time point at which the slope of this line changed, shortly after the publication of the NICE guideline. They did not examine other hypotheses, or check whether a single change in slope was the best fit for the data rather than two or more changes in slope. Having fitted two straight lines to the data, joining in 2008, they then attribute all the difference in these slopes to the introduction of the NICE guideline, effectively dismissing any other potential explanation for the increasing incidence of IE. Thornhill *et al.* then propose that the *Lancet* summary data are presented directly to patients as the consequence of the NICE recommendation, with almost no acknowledgment of the uncertainty surrounding their estimate. In their paper in the *BDJ* they do not acknowledge or address any criticism of the analysis or their interpretation. This may lead to inappropriate clinical practice and we are sure readers of the *BDJ* will recognise that this perspective should not be presented uncritically to patients.

What is beyond dispute is that there is an increasing incidence of IE, which is not properly understood and continues around the world despite various antibiotic prophylaxis policies. As recommended in the guideline in 2008 and again in 2015, the research community needs to design better epidemiological research to understand the causes of this phenomenon and thus suggest better preventive strategies.

P. Alderson, M. Baker, Manchester

1. Thornhill M H, Dayer M, Lockhart P B *et al.* Guidelines on prophylaxis to prevent infective endocarditis. *Br Dent J* 2016; **220:** 51–56.
2. National Institute for Health and Care Excellence (NICE). Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. March 2008. Updated September 2015. Available at: https://www.nice.org.uk/Guidance/cg64 (accessed April 2016)
3. Habib G, Lancellotti P, Antunes M J *et al.* 2015 ESC Guidelines for the management of infective endocarditis: The Task Force for the Management of Infective Endocarditis of the European Society of Cardiology (ESC). Endorsed by: European Association for Cardio-Thoracic Surgery (EACTS), the European Association of Nuclear Medicine (EANM). *Eur Heart J* 2015; **36:** 3075–3128.
4. Dayer M J, Jones S, Prendergast B, Baddour L M, Lockhart P B, Thornhill M H. Incidence of infective endocarditis in England, 2000–2013: a secular trend, interrupted time-series analysis. *Lancet* 2015; **385:** 1219–1228.

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DENTAL EDUCATION

Piecing the Jigsaw

Sir, cooperative learning leads students to a higher level of reasoning through critical creative thinking, problem-solving and interpretation, and we have incorporated the so-called Jigsaw approach or Aronson's Puzzle into this technique for dental undergraduates.

The Jigsaw approach was introduced in the early 1970s by Elliot Aronson at the Universities of Texas and California as a way of reducing racial conflict among students and increasing positive educational outcomes. We have incorporated it for the resolution of clinical cases by undergraduates in the subject areas of special needs in dentistry and comprehensive dental care in adults using two different study designs.[1]

In both subjects, four three-hour sessions in the first three months of the academic year were applied using the Jigsaw approach. Additionally, the teaching methodology consisted of lectures, in which the teacher presented and discussed diagnoses and treatment plans for different clinical cases, as well as clinical training sessions with patients. In order to evaluate the effectiveness of using Jigsaw cooperative learning, we compared the marks obtained in the final exam for each group as well as the students' perception using a questionnaire. Our findings support that the Jigsaw cooperative learning technique contributes to enhance clinical reasoning and decision-making, as well as the resolution of clinical case problems in dentistry. From the students' perspective, this technique helps them to understand the complexity and depth involved in solving dental clinical cases.

M. Mercedes Suarez-Cunqueiro, Spain

1. Aronson E, Bridgeman D, Geffner R. Interdependent interactions and prosocial behavior. *J Res Dev Educ* 1978; **12:** 16–27.

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