



UNIVERSITY OF LEEDS

This is a repository copy of *Pharmaceuticals: Antibiotics and vegetarians*.

White Rose Research Online URL for this paper:  
<http://eprints.whiterose.ac.uk/112196/>

Version: Accepted Version

---

**Article:**

Smith, DJ, Ratansi, RA, Mann, E et al. (2 more authors) (2016) Pharmaceuticals: Antibiotics and vegetarians. *British Dental Journal*, 221 (11). p. 684. ISSN 0007-0610

<https://doi.org/10.1038/sj.bdj.2016.884>

---

© 2016, British Dental Association. This is an author produced version of a letter published in *British Dental Journal*. Uploaded in accordance with the publisher's self-archiving policy.

**Reuse**

Unless indicated otherwise, fulltext items are protected by copyright with all rights reserved. The copyright exception in section 29 of the Copyright, Designs and Patents Act 1988 allows the making of a single copy solely for the purpose of non-commercial research or private study within the limits of fair dealing. The publisher or other rights-holder may allow further reproduction and re-use of this version - refer to the White Rose Research Online record for this item. Where records identify the publisher as the copyright holder, users can verify any specific terms of use on the publisher's website.

**Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing [eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk) including the URL of the record and the reason for the withdrawal request.



[eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk)  
<https://eprints.whiterose.ac.uk/>

## **Pharmaceuticals: Antibiotics and vegetarians.**

**DJ Smith<sup>1</sup>, RA Ratansi<sup>2</sup>, E Mann<sup>3</sup>, J Russell<sup>4</sup> and A Kanatas<sup>5</sup>**

1. Dominic James Smith, BDS(Hons) BMedSci(Hons) MFDSRCSEd.  
Dental Foundation Trainee, Leeds Teaching Hospitals
2. Reshma Ratansi, BDS(Hons). Dental Foundation Trainee, Leeds Teaching Hospitals
3. Elaine Mann, GPhC, FRPS. Pharmacist, Leeds Teaching Hospitals
4. John Russell FRCS. Consultant, Leeds Teaching Hospitals
5. Anastasios Kanatas, FRCS. Consultant, Leeds Teaching Hospitals

### **Address for correspondence:**

Anastasios Kanatas  
Consultant Head and Neck Surgeon / Senior Lecturer University of Leeds  
BSc (Hons), BDS, MBChB (Hons), MFDSRCS, MRCSRCS, FRCS (Max Fac), PhD, MD, PGC  
Leeds Teaching Hospitals NHS Trust, St James's Institute of Oncology, Great George St, Leeds  
LS1 3EX  
Tel: 0113 243 2799  
email: a.kanatas@doctors.org.uk

Sir,

Over one billion prescriptions were dispensed in the UK in 2014. As medical professionals, we take great care in establishing if patients have any previous drug allergies or sensitivities; however, less commonly reported is what compromises the capsules, and the constituent elements of these medications. Though this information can be found in patient information leaflets, it is not common for patients to be actively aware of this, or to be given a choice over the matter. For certain patients, to treat them without clarifying this threatens the notion of valid consent.

We recently received a complaint from a patient, a practicing vegetarian patient, who was unhappy that we were unable to guarantee his antibiotic prescription would be free from animal products. The antibiotics themselves are usually either derived from fungus, soil bacteria or are laboratory-synthesized, so generally are suitable for vegetarians and vegans. However, there is a general problem with capsules, as the majority of them are made from gelatin, an animal product. (1) Lactose is also used as a filler in tablets and capsules, and whilst this is acceptable to the majority of vegetarians, it is unacceptable to vegans; consideration to those who are intolerant to lactose should also be given regarding this point.

Often, tablets contain magnesium stearate as a lubricant during the tablet processing, and this is also derived from animal sources. Liquids can eliminate most of these problems, but again, the exact ingredients must be confirmed, as some colourings can come from crushed insects, for example cochineal.

Where other prescriptions are concerned in mouth care, for example in xerostomia management, a variety of non-animal derived, vegetarian-friendly alternatives exist; for example, AS Saliva Orthana contains porcine-derived mucin - however, vegetarian-friendly Xerotin may be used instead.(2) If, therefore, our patients feel strongly enough to opt for this, even when there is no ingestion of the medication, then is it not our duty to inform them that certain antibiotic prescriptions, (which are swallowed and absorbed), may not be aligned with their values?

Recently, Montgomery consent has succeeded the Bolam test. The concept of informed consent now includes "material risks," i.e. whereby "*a reasonable person in the patient's position would be likely to attach significance to the risk, or the clinician is or should reasonably be aware that the particular patient would be likely to attach significance to it.*"(3) In some vegetarian patients who feel strongly about consumption of animal-based products, regardless of the therapeutic value of medications, to omit information which they would attach significance to - the animal-based ingredients of their antimicrobials - could be seen as breaching Montgomery consent.

In summary, it may be difficult in practice to be able to guarantee a medication is fully suitable for vegetarians or vegans; however, it is something to consider when establishing a full history from a patient - whether they have any dietary requirements and if these would be contravened by any tablets or capsules prescribed. As practitioners, it is our responsibility to take a holistic approach to care with our patients, which not only includes their oral care and their medical care, but encompasses their beliefs and wishes. Where grievances arise, we should as medical professionals do our best to educate patients and provide valid consent, explaining the benefits of the medication intended and the potential risks to the patient if they refused the treatment offered, and where possible, offer alternative approaches to care.

## REFERENCE LIST

(1) Beddis HP. Pharmaceuticals: Animal ingredients. Br Dent J 2016 Jun 10;220(11):557.

(2) Jawad H, Hodson NA, Nixon PJ. A review of dental treatment of head and neck cancer patients, before, during and after radiotherapy: part 2. Br Dent J 2015 Jan;218(2):69-74.

(3) D'Cruz L, Kaney H. Consent - a new era begins. Br Dent J 2015 Jul 24;219(2):57-59.