NEW ANTICOAGULANTS

Sir, NICE recently recommended dabigatran etexilate as a possible treatment to prevent stroke and systemic embolism in people with atrial fibrillation. The US Food and Drug Administration have also approved rivaroxaban. It is possible that these two anticoagulants will eventually replace warfarin.

Dabigatran and rivaroxaban are quickly absorbed and have short half-lives compared to warfarin so, in the event of excessive anticoagulant activity, discontinuing the drug is usually sufficient. They have no antidotes. There is no need for routine coagulation monitoring in the same way as warfarin using the prothrombin time INR. Most dental situations such as removal of a small number of teeth would be comparable to treating a patient with an INR ≤4, relying on local measures to obtain haemostasis – pressure with sterile pads (moistened with water, normal saline or 5% tranexamic acid solution), absorbable oxidised cellulose sponges, and sutures.

The known drug interaction profiles of both dabigatran and rivaroxaban as regards antimicrobials and analgesics are less restrictive than with warfarin. It may be better to confine analgesic use to paracetamol since NSAIDs have antiplatelet effects. Table 1 shows data relevant to dental health care.

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By email

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Table 1 Data comparing warfarin with new anticoagulant drugs

	Warfarin	Dabigatran	Rivaroxaban
Targets	Factors II, VII, IX and X Proteins C and S	Thrombin (inhibits)	Factor Xa (inhibits)
Effective half-life	20-60 h (mean ~40 h)	Adult 12-17 h; old people 14-17 h (assuming no renal impairment)	Young individual 5-9 h; Old people 11-13 h
Food and other effects on absorption	Food may delay rate	Acidic environment needed. Absorption may be reduced by drugs such as proton pump inhibitors and antacids	Food increases rate and extent of absorption by 25-35%
Need for routine monitoring of coagulation	Yes (PT/INR)	No	No
Antidote/reversal agent available	Yes (vitamin K)	No	No
Drug and food interactions: **increased** anticoagulation	**Antifungals**: miconazole, ketoconazole, fluconazole (lesser degree: itraconazole) **Antibiotics**: erythromycin, clarithromycin, (metronidazole possibly) azithromycin, tetracycline, doxycycline, cephalosporins, levofloxacin **Analgesics**: NSAIDs, (antiplatelet agents: aspirin, clopidogrel), ibuprofen, diclofenac, paracetamol (prolonged regular use) **Food/herbs**: cranberry juice, St John's wort, alcohol, many dietary supplements	**Antifungals**: ketoconazole, itraconazole **Antibiotics**: **erythromycin**, clarithromycin **Analgesics**: NSAIDs, (antiplatelet agents: aspirin, clopidogrel), ketorolac (**diclofenac** appears not to interact) **Food/herbs**: alfalfa, anise, bilberry	**Antifungals**: ketoconazole, itraconazole (miconazole if renal function impaired) **Analgesics**: NSAIDs, (antiplatelet agents: aspirin, clopidogrel) **Food/herbs**: grapefruit juice, alfalfa, anise, bilberry
Drug and food interactions: **decreased** anticoagulation	Green leafy vegetables (vitamin K), vitamin E	Dexamethasone Carbamazepine Rifampicin St John's wort	Phenytoin Rifampicin St John's wort

MUCH TO COMMEND

Sir, those who read the *BDJ* of 10 March (volume 212 issue 5) will be aware that the British Association for the Study of Community Dentistry (BASCD) has written to the Secretary of State for Health reflecting the concerns of the wider public health community about the impact of the Health & Social Care Act on the NHS and its implications for health improvement and inequalities. The same issue carried an editorial by Paul Batchelor, a past president of BASCD, setting out these concerns in more detail and describing a future NHS that may resemble the system in the USA, with all its costs and shortcomings.

Those readers who have experienced previous English NHS reorganisations may see the latest one as the final step in a sequence aimed at creating a real market for health services in England, with a supporting bureaucracy that includes procurement, commissioning, contracting and performance management. Much of the increased cost of the NHS in recent years could be explained by the creation of this chain of processes.

My reason for writing is to point out a significant omission from the BASCD letter and the *BDJ* editorial, which is that the Act has much to commend it from a dental point of view. The irony is that the Act goes a long way to remedying the problems of a dental market but condemning the rest of the NHS to a similar learning process.

Dental services have always operated in a real market, albeit with one major purchaser. Dental practices are all private businesses and we have seen the emergence of national dental companies with significant market share. The lessons learnt from the 2006 contract were set out in the Steele report and the Department of Health (DH) has done a great deal to address these problems and create the conditions where dentists can work within a public health approach to dental disease. It has the potential to create a better future for dental services by a single, consistent commissioning model, an emphasis on oral health outcomes and the opportunity for GDPs to practise prevention, without the perverse incentives of the