LETTERS

Note to authors of letters: Please note that all letters submitted for publication should be typed with *double spacing*. Failure to comply with this may lead to delay in publication.

Anticoagulant therapy

Sir,

Like Dr Pell and colleagues (April *Journal*, p.152) our practice has run an anticoagulant monitoring service for some time. The practice nurse provides a reliable home venepuncture service. When the anticoagulant monitoring service was audited last year, only eight of the 18 patients on warfarin (44%) received adequate anticoagulant therapy according to the British Society for Haematology guidelines.[1] Our standard of care was particularly poor for those requiring the higher level of international normalized ratio (3.0–4.5), of whom only 38% (6/16) had readings within the target range. The remainder were, without exception, undercoagulated.

In an attempt to remedy this it was agreed that the target range should be written on the international normalized ratio record sheet for each patient. Six months later, a further survey of the records showed that 93% (13/14) of those on warfarin were receiving adequate anticoagulant therapy including 91% (10/11) of those who needed an international normalized ratio of 3.0–4.5. Thus, the simple act of making a positive decision regarding the level of anticoagulation required and committing that decision to paper led to a marked improvement in the standard of care.

We agree that general practice is the best place for anticoagulant control as only a general practitioner is aware of concurrent therapy.

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Reference

1. British Committee for Standardisation in Haematology. *Guidelines on oral anticoagulation.* London; British Society for Haematology, 1984.

Sir,

We would like to congratulate Jill Pell and colleagues for their observations on the control of anticoagulant therapy among patients attending general practice (April *Journal*, p.152). We believe, as does Harden,[1] that such control should be the responsibility of the general practitioner.

However, the method used by Pell and colleagues to assess the quality of therapeutic control was a simple calculation of the proportion of international normalized ratios recorded in the notes which were satisfactory, and it may considerably underestimate the quality of control achieved, since patients with values lying outside the desired range are likely to be checked more frequently and would therefore be over-represented. It is possible that more patients with problematic control attended hospital than general practice, because such patients are often referred by general practitioners to a dedicated hospital anticoagulant clinic. It is also possible that patients with satisfactory control were over-represented in the general practice sample, because they were reviewed significantly more often than the hospital sample.

The degree of control attained could have been estimated by counting the number of weeks in which the defined ranges were achieved. This procedure, proposed by Duxbury,[2] has already been used in other studies.[3-5] Using this method, patients with problematic control are represented in the same proportion as those with satisfactory control and this is independent of the number of tests for each patient.

The majority of our patients receiving anticoagulant treatment are controlled at our primary care centre (only three out of 163 patients requested anticoagulant treatment in hospital). In an audit in 1990, our patients were within recommended rates 68% of the time.[5] Satisfactory results can be considered as 70% or more of the time.[6]

Recently, the International Society on Thrombosis and Haemostasis recommended that an assessment of therapeutic control of oral anticoagulant therapy should be based on the proportion of all patients in the target of international normalized ratio at a certain point in time.[7] We intend to carry out an audit using this method for our 160 patients receiving anticoagulant therapy over the last four years. All centres undertaking anticoagulant control should use the same method of evaluation, so that their results can be compared. We recommend this last method,[7] as although it is less accurate than Duxbury's method,[2] it is less laborious and has been recommended by international organizations.

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References

1. Harden KA. Therapeutic control of anticoagulant treatment [letter]. *BMJ* 1982; **284:** 1330.
2. Duxbury BMcD. Therapeutic control of anticoagulant treatment. *BMJ* 1982; **284:** 702–704.
3. Raper CGL. The therapeutic quality control of anticoagulant clinics [letter]. *Clin Lab Haematol* 1983; **5:** 325–327.
4. Copplestone A, Roath S. Assessment of therapeutic control of anticoagulation. *Acta Haematol (Basel)* 1984; **71:** 376–380.
5. Alonso R, Sama JJ, Puche N, *et al.* *Anticoagulación oral en atención primaria. Auditoría de 60 casos. Proceedings of I WONCA European Regional Conference on Family Medicine/General Practice, 10-14 December 1990,* Barcelona, Spain: Socieded Española de Medicina Familiary Communitaria, 1990.
6. Anonymous. Oral anitcoagulant control [editorial]. *Lancet* 1987; **2:** 488–489.
7. van den Besselaar AMHP. Recommended method for reporting therapeutic control of oral anticoagulant therapy. *Thromb Haemost* 1990; **63:** 316–317.

Sir,

I was impressed by the favourable anticoagulant control found by Pell and colleagues in general practice compared with that of a hospital clinic (April *Journal*, p.152). I wholeheartedly agree with their conclusion, that general practitioners should be encouraged to widen the scope of their services, which would benefit the patient and encourage the clinical interest of the general practitioner.

The paper also serves as an interesting reflection of the times. When I published a paper on anticoagulant care in general practice in 1979,[1] Denis Pereira Gray denounced such 'specialization' and felt that general practitioners could not be generalists and specialists simultaneously.[2] He even rued the possibility of specialized general practice clinics for asthma or children. The paper by Pell and colleagues supports my counter arguments[3] and I would like to add that our practice anticoagulant clinic continues