Chloroquine-induced retinal toxicity

To the Editor: Dr Rivett's letter on chloroquine-induced retinal toxicity[1] requires comment.

For Dr Rivett to state that 'many patients develop profound visual loss every year as a result of chloroquine toxicity' is misleading. We comment on three aspects:

1. Data referring to choloroquine alone are scant, as many authors deal with antimalarials as a group. MacKenzie[2] was probably the first to examine the issue after it became accepted that retinopathy had been identified as a potential problem. He quotes data clearly establishing a dose-related effect. Of 928 patients treated with between 2.0 and 3.7 mg/kg/d of chloroquine 'for years', none developed retinopathy. The incidence of pigmentary degeneration *without scotoma or visual loss* increased to 6% at doses above 4.6 mg/kg/d. At doses estimated to range from 11 to 33 mg/kg/d, chloroquine is associated with a sharply rising incidence of scotomas and decreasing visual acuity. Despite these findings there are widely quoted figures for visual loss in the literature, ranging from 0.001% to 40%.[3] Easterbrook,[4] a leading ophthalmologist, concludes that 'the incidence of retinopathy is very low at doses of less than 6.5 mg/kg/day of hydroxychloroqine or less than 3.0 mg/kg/day chloroquine . . .', and this probably sums up our current state of knowledge on this subject.

This matter has received considerable attention in the dermatology and rheumatology literature, and we would assume that most of our colleagues follow the published guidelines (as published in Dr Rivett's letter.)

2. Chloroquine appears to be a more effective drug than hydroxychloroquine.[5] Removing the drug from the market and replacing it with one that is less potent only risks exposing our patients to potentially more toxic alternatives.

3. While both hydroxychloroquine and chloroquine induce retinal damage, it is generally accepted that the former is less toxic. The general opinion is that patients on either drug require monitoring. The debate at the moment is the most cost effective manner to achieve this.[4]

It is unfortunate that the contents of Dr Rivett's letter were reported in a local paper, which could only have generated anxiety in any patient taking this generally very safe drug.

Dave Whitelaw

Rheumatology Unit
Tygerberg Hospital
Tygerberg, W Cape

Sue Jessop

Division of Dermatology
Groote Schuur Hospital
Cape Town

1. Rivett K. Chloroquine-induced retinal toxicity (Scientific letter). *S Afr Med J* 2004; **94:** 41.
2. McKenzie AH. An appraisal of chloroquine. *Arthr Rheum* 1970; **13:** 280-287.
3. Easterbrook M. Ocular effects and safety of antimalarial agents. *Am J Med* 1988; **85:** suppl 4A, 23-29.
4. Easterbrook M. Screening for antimalarial toxicity: current concepts. *Can J Ophthalmol* 2002; **37:** 325-328.
5. Felson DT, Anderson JJ, Meenan RF. The comparative efficacy and toxicity of second line drugs in rheumatoid arthritis. *Arthr Rheum* 1990; **33:** 1449-1461.

Prescribed minimum benefits or minimum prescribed benefits?

To the Editor: Discovery Health notes the contents of Professor Rayner's submission to the *SAMJ*.[1]

If we had had the opportunity to reply before publication, we would have been able to confirm that the medication prescribed for the patient mentioned in the article was approved within our appeals process on 5 July 2004, before publication of the *SAMJ*. We take umbrage that we were not afforded the opportunity to address and comment on Professor Rayner's concerns before publication. It is unfortunate that we have had to write this letter retrospectively, especially as it may not reach the readership/audience of the August 2004 journal.

In relation to this article, allow us to clarify further.

1. Discovery Health has always been fully compliant with the legal requirements of Act 101 and its requirements. In point of fact, during 2003 Discovery Health was an integral partner in assisting the Council for Medical Schemes in drafting treatment algorithms. The regulations permitted the creation of formularies related to the Chronic Disease List (CDL) conditions, in order that this benefit could be included in lower premium plans, promoting affordability and thus allowing more people to access cover.

2. With specific reference to hypertension, the drug formulary that we offered was fully compliant with the Council's guidelines and requirements and was also in accordance with the most recent Hypertension Guideline update. The formulary applied to specific benefit options, and was not a general feature of all options.

3. Members who purchased an ancillary benefit have access to an enhanced chronic benefit and are not limited to a formulary. Those who do have the ancillary benefit qualify for basic chronic cover as stipulated by the Prescribed Minimum Benefits. The choice of drugs included within the formulary on these plans was based on their cost effectiveness, related either to their list price or to the discount price offered to Discovery Health members.

For drugs prescribed outside of the formulary, the scheme allows members to fund their therapy with a monthly medical allowance set at a similar level to that of items included in the formulary.

Since legislation has now been implemented with regard to single exit prices and the discontinuation of mark-ups related to drugs, Discovery Health can now afford to expand its formulary, enabling members to access as many drugs as is clinically appropriate and cost-effective to the Scheme.

As regulations also require consideration of other drugs not on the formulary for 'ineffective' care and for 'adverse effects', an appeal process was created to facilitate this. It is important to note that this is not an open 'loophole' to bypass the formulary,