

Maximising response rate is one way in which the effect of systematic response bias can be reduced, and some journals have employed response thresholds below which they will automatically reject questionnaire-based studies.⁷ There are well-established guidelines on how to maximise response rate in surveys, despite which many studies are published that have failed to take advantage of these and often suffer as a result.⁸

A hand search of all articles published in *Eye* over the past 10 years found 26 studies involving questionnaires. We compared the published methodologies of these studies to the points of best practice identified from a literature review.²⁻⁵ Although some studies were extremely rigorous, pre-testing of questionnaires, maximising response rates, and taking into account the possible bias introduced by under-attainment in the analysis or even making active attempts to characterise non-responders, there were more studies that did not.

We would encourage all authors undertaking questionnaire-based research to pay close heed to their study design. Where the number of potential interviewees is large, random sampling might be a better way to reduce the overall numbers rather than self-exclusion by nonresponse.

References

- 1 Gale RP, Saha N, Johnston RL. National Biometry Audit II. *Eye* 2006; **20**(1): 25–28.
- 2 Stone DH. Design a questionnaire. *BMJ* 1993; **307**(6914): 1264–1266.
- 3 Fallowfield L. Questionnaire design. *Arch Dis Child* 1995; **72**(1): 76–79.
- 4 Boynton PM, Greenhalgh T. Selecting, designing, and developing your questionnaire. *BMJ* 2004; **328**(7451): 1312–1315.
- 5 Boynton PM. Administering, analysing, and reporting your questionnaire. *BMJ* 2004; **328**(7452): 1372–1375.
- 6 Foot BG, Stanford MR. Questioning questionnaires. *Eye* 2001; **15**(Part 6): 693–694.
- 7 Chapple IL. Questionnaire research: an easy option? *Br Dent J* 2003; **195**(7): 359.
- 8 Edwards P, Roberts I, Clarke M *et al*. Increasing response rates to postal questionnaires: systematic review. *BMJ* 2002; **324**(7347): 1183.

DM Spokes¹ and JC Buchan^{1,2}

¹Department of Ophthalmology, Harrogate District Hospital, Harrogate, North Yorkshire, UK

²Department of Ophthalmology, St James's University Hospital, Becket Street, Leeds, UK

Correspondence: DM Spokes,
Department of Ophthalmology,

Harrogate District Hospital,
Lancaster Park Road, Harrogate,
North Yorkshire HG2 7SX, UK
Tel: +44 01423 553565;
Fax: +44 01423 553629.
E-mail: dmspokes@yahoo.co.uk

Neither author has any proprietary interests or relevant research funding

Eye (2007) **21**, 250–251. doi:10.1038/sj.eye.6702481;
published online 9 June 2006

Sir,
Reply

We applaud the authors for attempting to address the issue of mobile phone use around ophthalmic equipments. The paper concludes that 'devices are unlikely to be significantly affected by electromagnetic interference' and questions the need for a complete ban of mobile telephones in ophthalmic departments. Although probably true, it appears that the methods used may not be robust enough to draw these conclusions.

The study did not address the phones' energy emissions when observing for effects on the tested equipment; thus, these results are valid only for the exact time, place, and handsets used. This is because a mobile phone increases or decreases its energy output depending on its proximity to the base station (a phenomenon known as 'adaptive energy'), the state of the call (standby, connecting or connected), and there is further variability in energy output between individual handsets and networks. Therefore, electromagnetic interference testing without simultaneous energy or power measurements can be dangerous as it may lead to a false conclusion of relative safety. One such example is where there happens to be a base station in close proximity to the test site resulting in the phones emitting only a fraction of their potential energy.

Although the results are encouraging, we feel that caution should be exercised when drawing conclusions from these data.

A Mitra and GM Saleh

Department of Ophthalmology, Wolverhampton
Eye Infirmary, Compton Road, Wolverhampton,
West Midlands WV3 9QP, UK

Correspondence: A Mitra,
Tel: + 44 7905956498;
Fax: + 44 1902711985.
E-mail: drarijitmitra@yahoo.com

Eye (2007) **21**, 251–252. doi:10.1038/sj.eye.6702482;
published online 16 June 2006

Sir,
Bilateral acute anterior uveitis as a side effect of trimethoprim

Trimethoprim is the most commonly used drug in the treatment of urinary tract infection in women. Common side effects associated with its use include skin rash, itching, gastrointestinal upset, anaemia, and swelling of the tongue. We report a rare case of trimethoprim-induced bilateral acute anterior uveitis.

Case report

A 41-year-old woman, who had been taking oral trimethoprim 200 mg twice daily for 2 days, was referred by her general practitioner with a 8-h history of bilateral painful red eyes. She had also developed sudden-onset chills, itching, arthralgia, and myalgia. The examination revealed bilateral acute anterior nongranulomatous uveitis with raised intraocular pressures. Her fundi were normal.

Her past ocular history was unremarkable. She had been treated with trimethoprim on two previous occasions without any adverse effects.

The uveitis was treated with topical steroids and mydriatics, with complete recovery within a few days of discontinuing trimethoprim. Routine blood tests including acute phase reactants were all normal. Her chest radiograph was negative, as were toxoplasmosis antibodies, antistreptolysin-O and antinuclear antibodies. No bacteria were detected in her urine. HLA-B27 was negative.

With the patient's informed consent, she was re-challenged with a single oral dose of 200 mg of trimethoprim. Approximately 45 min after taking the drug she became ill, with visual disturbance, headache, arthralgia, and myalgia. There was bilateral acute anterior uveitis. Topical treatment was instituted and recovery was again rapid and complete.

Comment

Trimethoprim is a widely used antibiotic, either alone or in combination with sulpha drugs. Serious side effects

are rare, although there have been occasional case reports of aseptic meningitis and Stevens–Johnson syndrome.^{1,2} Acute uveitis has been described only twice previously.^{1,2} Retinal haemorrhages have been reported.³ In the past uveitis has been attributed to the systemic use of sulphonamide derivatives.⁴ Sulphonamides are frequently administered in combination with trimethoprim, and it is possible that some of the reported cases of sulphonamide-induced uveitis may in fact have been due to trimethoprim.

Trimethoprim is widely distributed in body fluids, including aqueous and vitreous humour. Interestingly, our patient had no side effects on the first and second occasions she was given trimethoprim. On the third occasion, she developed symptoms after three doses, and there was an even more rapid recurrence of uveitis with rechallenge. This strongly suggests the possibility of an immunologically mediated process. A similar chain of events was noted in the case report by Gilroy *et al.*² It appears, therefore, that a patient who has shown no side effects with trimethoprim in the past can develop uveitis on repeated exposure.

The association of bilateral anterior uveitis with systemic use of drugs has rarely been reported, and physicians, general practitioners, and ophthalmologists should be aware of potential complication and include side effects of systemic drugs in the differential diagnosis of uveitis.

References

- 1 Arola O, Peltonen R, Rossi T. Arthritis, uveitis, and Steven-Johnson syndrome induced by trimethoprim. *Lancet* 1998; **351**: 1102.
- 2 Gilroy N, Gottlieb T, Spring P, Peiris O. Trimethoprim-induced aseptic meningitis and uveitis. *Lancet* 1997; **350**: 112.
- 3 Kristinsson JK, Hannesson OB, Sveinsson O, Thorleifsson H. Bilateral anterior uveitis and retinal haemorrhages after administration of trimethoprim. *Acta Ophthalmol Scand* 1997; **75**: 314–315.
- 4 Tilden ME, Rosenbaum JT, Fraunfelder FT. Systemic sulfonamides as a cause of bilateral, anterior uveitis. *Arch Ophthalmol* 1991; **109**: 67–69.

S Pathak and B Power

Department of Ophthalmology, Dumfries and Galloway Royal Infirmary, Dumfries, UK

Correspondence: S Pathak,
PGMC,
Hereford Hospitals NHS Trust,
Hereford HR1 2ER, UK
Tel: + 44 7921338609;
Fax: + 44 1432364426.
E-mail: sonal.pathak@nhs.net