since this article was accepted for publication, suggests no difference in relative risk reduction in subjects older or younger than 65 years. The conclusion from this analysis may not necessarily apply across the wider age range commonly encountered by those running primary prevention clinics; nevertheless, at this stage more data are required to establish whether the benefits of lipid lowering therapy are age related.

Contributors: RHN and SR set up the study, developed the database, and evaluated the data with PC. The report was written jointly by all authors.

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Drug points

Allergy associated with ciprofloxacin

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Meningococcal infection can be life threatening. Most infections are sporadic, although clusters do occur, particularly in teenagers. The management of clusters includes giving antibiotics to a defined group. Vaccination has a role in clusters of meningococcal serogroup C infection. Although ciprofloxacin 500 mg orally is not licensed for prophylaxis against meningococcal disease, it is used because it reduces meningococcal carriage,[1] can be given as a single dose, and, unlike rifampicin, does not interact adversely with the contraceptive pill.[2] We report on anaphylactoid reactions to ciprofloxacin in three students and a close contact with meningogoccal infection (table).

Two cases (one fatal) of meningococcal infection occurred in first year university students within 12 days of each other. Ciprofloxacin 500 mg orally was offered to all the 4253 students in their first year at the university; around 3200 accepted.

Three cases of anaphylactoid reaction occurred—a rate of about 1:1000, much higher than the 1:100 000 quoted (12 cases in a population of 972 000).[3] Two of the three students had no history of atopic illness. All three students and the contact recovered. Additional adverse reactions were mild skin rashes in three students and nausea and vomiting in two.

A high rate of serious adverse events must be balanced by clear benefits to the target group. Ciprofloxacin clears meningococcal carriage so reducing transmission to a susceptible host. As carriers do not become cases the benefits from ciprofloxacin are for the community not the individual. The risk of a second case of infection among close contacts is 500 to 1000 times higher than in the general population.[4] The risk of a third case in a student population that has already had two cases is unknown.

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Serious allergic reactions to ciprofloxacin

Patient (sex)	Age (years)	Onset (minutes)	Symptoms	Findings	Treatment
Student					
1 (male)	21	30	Tight and hoarse throat, swelling of eyes	Blood pressure 150/100 mm Hg, peak flow 550 1/m	Adrenaline intramuscularly and chlorpheniramine orally
2 (female)	20	20-30	Itchy rash, tight throat	Blood pressure 120/80 mm Hg, peak flow 450 1/m	Adrenaline intramuscularly and chlorpheniramine orally
3* (female)	19	3†	Dyspnoea, tight throat, swelling of eyes, cough	Peak flow 300 1/m, heart rate 160, 100% saturation	Adrenaline intramuscularly, chlorpheniramine orally, and salbutamol by nebuhaler. Admitted to hospital for 2 days
Contact					
1‡ (male)	19	30	Swelling of face and eyes	—	Chlorpheniramine and hydrocortisone intramuscularly

*History of asthma with inhaled steroids. †Hours. ‡History of penicillin allergy.