reasons for non-attendance are low perception of asthma severity and visits to their own GP instead. The latter group appeared to exhibit a relatively high level of asthma morbidity. Given the proven worth of structured asthma care, practices need to identify such patients and channel them into their structured asthma care system. ■

Source of funding: Allen and Hanburys

Is it possible to write a research protocol in 10 hours?

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Aims
To produce three asthma-related protocols within 10 hours while simultaneously enhancing the research protocol writing skills of participants.

Background
The research capacity within primary care could be improved through the identification of novel strategies. The General Practitioners In Asthma Group (GPIAG), which has an interest in improving patient care and research into respiratory medicine, held a research protocol workshop in London in December 1998.

Methods
All 34 participants were allocated to one of three groups led by a team of experienced researchers. The groups selected one of two possible questions determined through a pre-workshop consultative process between members of the GPIAG. They were then required to devise a complete research protocol during the workshop.

Outcomes
Participants completed an anonymous semistructured questionnaire immediately before and after the workshop, documenting their research protocol writing skills (six-point Likert scale). Paired responses were compared using the Wilcoxon test.

Results
Each group successfully completed a draft research protocol, and a study group from within each was identified to complete the protocol and bid for monies to fund the projects. Thirty participants (88%) completed both the pre- and post-workshop questionnaires. Participants believed there were improvements in their ability to: formulate an answerable research question ($p < 0.01$); choose an appropriate methodology to answer the question ($p < 0.01$); choose appropriate outcome measures ($p = 0.03$); choose appropriate statistical methods ($p = 0.01$); devise a research timeline ($p < 0.01$); and overall ability to write a research protocol ($p < 0.01$).

Conclusions
It is possible to write a research protocol within 10 hours while simultaneously increasing the research writing skills of participants. ■

Source of funding: Astra Pharmaceuticals (accommodation and venue)

Emergency prehospital care in London: How well does the ambulance service treat acute asthma patients?

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Introduction
Little is known of the quality of care given to acute asthma patients by emergency ambulance crews, although prehospital administration of nebulised salbutamol has become commonplace.

Rationale for study
This asthma audit was carried out to measure accuracy of diagnosis, adherence to treatment protocol and benefit to patients. A multidisciplinary advisory group was set up, including representatives from an ambulance service, accident and emergency (A&E) department, primary care and a patient group.

Methods
A retrospective audit included patients who had had a discharge diagnosis of asthma or had been administered salbutamol by London Ambulance Service crews in the catchment areas of four London hospitals between January and March 1995. A&E and prehospital documentation was collected for each case; data were analysed using SPSS. Qualitative interviews were also carried out with patients.

Results
A literature review highlighted discrepancies between national guidelines and local treatment protocols. Of 189 patients diagnosed with asthma in A&E, 100 (58%) were administered salbutamol by the attending ambulance crew; of the others, 36 fell outside treatment protocols and 16 were not recognised as suffering from asthma. Only 15 patients administered salbutamol by the crew were diagnosed with complaints other than asthma. Drug administration protocols were followed in 97% of cases. Observations documented 46% PEF, 52% RR, and 72% PR. Due to missing readings, changes in patient condition were difficult to assess; however, the mean change in PEF between initial readings and A&E was +39.6l/min. Patients interviewed were full of praise for their ambulance crews.

Conclusions
Quality of care was good with protocol adherence and high patient satisfaction. However, lack of observations and narrow protocols restricted treatment. Patient report forms, treatment protocols and training programmes have been revised as a result of this audit and a reaudit is now underway to measure their effects on patient care. ■