

# The psychological impact of cardiovascular screening and intervention in primary care: a problem of false reassurance?

T M MARTEAU

A L KINMONTH

S THOMPSON

S PYKE

On behalf of the British Family Heart Study Group

## SUMMARY

**Background.** *There have been many reports of the adverse psychological effects of screening. Here we discuss the results of a randomized controlled study — one of the first to address this issue.*

**Aim.** *To determine the extent to which participation in a population-based intervention programme that aims to reduce the risk of cardiovascular disease raises concerns about health, or undermines a belief in the ability to reduce that risk.*

**Method.** *A randomized controlled trial involving 13 general practices in England, Wales and Scotland was conducted. Two thousand, nine hundred and eighty-four middle-aged men and women undergoing cardiovascular risk-screening and intervention, and a randomized comparison group of 3 576 men and women from the same practices, who were not offered the intervention, were compared on three outcomes: perception of current health, perceived risk of suffering a heart attack, and perceived ability to reduce the risk of suffering a heart attack.*

**Results.** *We found no evidence to suggest that participation in this one-year, population-based intervention programme, to reduce the risk of cardiovascular disease raised concerns about health or risk of a heart attack; indeed, those in the intervention group were slightly more optimistic about their health. Alterations in perceptions of current health and the risk of suffering a heart attack were associated directly with true alterations in risk factors. A more noticeable effect on participants in this intervention programme was a reduction in their perceived ability to further reduce their risks of a heart attack. This was associated with a decrease in weight and with quitting smoking.*

**Conclusion.** *Contemporary screening and intervention programmes in primary care, aimed at reducing risk of cardiovascular disease, do not necessarily lead to raised anxiety or concern about health. A more subtle effect of screening would appear to be one of reassurance in the face of continuing, albeit reduced, risk.*

**Keywords:** *cardiovascular risk assessment; screening; perception of health; false reassurance.*

## Introduction

THERE have been many reports of the adverse psychological effects of screening.<sup>1</sup> The most commonly studied and reported adverse effect is anxiety, particularly amongst those recalled on screening programmes, but also amongst those receiving invitations to participate in screening<sup>2</sup> and those receiving negative results on screening.<sup>3</sup> Inappropriate or false reassurance has also been described as an unintentional adverse effect of screening. False reassurance is evident when people erroneously conclude that their screening result means that they are at less risk than they actually are. This is most often found amongst those receiving negative test results,<sup>4</sup> although it has also been described amongst those receiving positive results.<sup>5</sup> The lack of adequate control groups and experimental designs limits the conclusions that can be drawn from these studies.<sup>6</sup>

Screening, and the offer of advice on reducing the risk of suffering a heart attack, may also affect the extent to which individuals feel they have control over their own health. It has been argued that the traditional 'disease prevention' approach to health promotion, involving health professionals, may impair rather than improve health in the long term by undermining autonomy, medicalizing health, and increasing dependence.<sup>7</sup> Alternatively, learning ways to reduce the risk of a perceived health threat could lead to an increased sense of autonomy and self-efficacy. These potential consequences of screening have not been assessed formally.

The aim of the current study was to address the following question: to what extent does participation in a population-based intervention programme in primary care, to reduce the risk of cardiovascular disease, alter perceived health or risk of heart disease, or affect beliefs in the ability to reduce risks.

## Methods

The British Family Heart Study (BFHS) is a randomized controlled trial of nurse-led coronary risk-factor screening and lifestyle intervention in men aged 40–59 years and their partners, in general practices located in 13 towns throughout England, Wales and Scotland. It quantifies the extent of coronary risk-factor reduction that may be obtained in one year by such a practice-based strategy. Following the calculation of a risk score (see below), participants were told which quintile of the distribution of risk for coronary disease they were in, relative to others of the same age and sex. Lifestyle changes, in order to reduce the risk of suffering a coronary attack, were negotiated individually during follow-up visits. Those in the top quintile of risk were offered follow-up every two months; those in the fourth quintile, every three months; those in the third quintile, every four months; those in the second quintile, every six months; and those in the bottom quintile, once a year. The overall reduction in coronary risk was estimated to be 12% in the intervention practices at one year.<sup>8</sup>

The main BFHS study was designed with both internal and

Theresa M Marteau, MSc, PhD, professor, Psychology and Genetics Research Group, United Medical and Dental Schools of Guy's and St Thomas's, Guy's Campus, University of London. Ann-Louise Kinmonth, MD, MSc, FRCP, FRCGP, professor, Primary Care Medical Group, Faculty of Medicine, University of Southampton. Stephen Pyke, MSc, lecturer, and Simon Thompson, MA, Dip Stat, reader, Medical Statistics Unit, London School of Hygiene and Tropical Medicine, University of London. Submitted: 30 November 1995; accepted: 9 April 1996.

© British Journal of General Practice, 1996, 46, 577-582.

external randomized comparison groups. The external comparison group was taken from practices matched with the intervention practices for town, size, site (urban, suburban and rural), and the level of organisation of health promotion services. The internal comparison group comprised a random half of those in the intervention practices. Those allocated to the intervention group were screened before intervention and re-screened one year later. Those in the comparison groups did not receive an intervention and were screened once, at the end of the year.

The external control group was originally included in the study to control for a possible contamination effect on the internal comparison group, who were in a practice in which some patients were in the intervention group. The main results of the trial provided no evidence of any such contamination.<sup>8</sup> The nurses who conducted screening for the internal comparison group had been specially trained to administer the psychological questions, while those in the external comparison group had not. In this paper, we therefore contrast the intervention group only with the internal comparison group.

### Subjects

The subjects comprised 2984 men aged 40–59 and their female partners, who accepted the offer of screening and an intervention to reduce the risk of cardiovascular disease, and returned to be rescreened after one year (87% of the intervention group); and 3576 men and women of the same age in the same general practices who were not offered the intervention. The mean ages of the men and women in the two groups were almost identical.<sup>8</sup>

### Measures

1. Self-assessed health and risk of heart disease: One question was used to assess perceptions of current health, and was taken from the SF-36 Health Status Questionnaire.<sup>9</sup> The wording was as follows: 'In general, would you say that your health is: poor, fair, good, or excellent?' A second question assessed the perceived risk of heart disease: 'What do you think your risk of having a heart attack in the next fifteen years is, compared with other people of your age and sex: lower than average; slightly lower than average; average; slightly higher than average; or higher than average?'
2. Perceived ability to reduce risk of heart disease: This was assessed using one question: 'Do you think it is possible for you to do anything to reduce your risk of heart disease: yes, definitely; yes, maybe; no, probably not; no, definitely not.'
3. Epidemiologically assessed risk: Two risk scores were used in the Family Heart Study: the modified British Regional Heart Study score, to define the intensity of intervention; and the Dundee score, to assess the outcome.

The British Regional Heart Study<sup>10</sup> provides a risk score, based on both mutable and immutable risk factors, for calculating the overall level of coronary risk in middle-aged men in a primary care setting. It is calculated as a weighted sum of the following risk-factors: years smoking cigarettes; systolic blood pressure; serum cholesterol; diagnosis of ischaemic heart disease; diagnosis of diabetes; current angina; and parental death from heart disease. We adapted this score to estimate the 'risk-for-age' using data collected for the BFHS, and constructed a similarly age-adjusted risk score for women based on the same risk factors.<sup>8</sup> By dividing the risk score distributions into equal fifths we are able to define quintiles of the risk score distribution, which denote those at lowest risk as 1, through to those at highest risk as 5. Those in quintile 5 are estimated to have about 20 times the risk of subsequent coronary events compared with those in quintile 1.

The Dundee risk score<sup>11</sup> was also calculated to provide a risk score sensitive to lifestyle change. This score is based upon three potentially modifiable risk factors: blood pressure; serum cholesterol; and cigarette smoking.

### Procedure

Perceptions of current health, the risk of suffering a heart attack, and the ability to reduce heart attack risks were obtained in the intervention group on two occasions: as part of the initial screening assessment, and one year after this when participation in the prevention programme had finished. Those in the internal comparison group answered the questions when attending for screening at the one-year point. Participants were asked questions relating to their perceptions of health and the risks of suffering heart disease before clinical measurements or advice.

### Analysis

The effect of the intervention was assessed by comparing perceptions of health, the risk of suffering a heart attack, and the ability to reduce that risk in the intervention and comparison groups at the time of the one-year screen. Perceptions of current health were classified as positive when answered 'excellent' or 'good', and negative otherwise. Likewise, perceptions of the possible risk of heart attack were classified as positive when answered as 'lower' or 'slightly lower' than average. Perceptions of the ability to reduce that risk were classified as positive when answered 'definitely' or 'probably yes', and negative otherwise.

For each response, differences in proportions of those taking a positive view between intervention and comparison groups were calculated separately in each town. These differences were then pooled across the 13 towns using a random effects meta-analysis.<sup>12</sup>

We were able to explore the extent to which differences between the intervention and comparison groups were consistent with changes in specific risk factors in the intervention group, because the intervention group were screened before and after participating in the intervention programme. For these analyses, we classified participants as becoming more positive, becoming more negative, or being unchanged in their responses to each of the questions. The associations between response changes categorized in this way, and changes in specific risk-factors, were then assessed using polytomous ordered logistic regression.<sup>13</sup>

The extent to which the results might have been affected by the men and women recruited to the intervention group, who did not attend the one-year rescreen, was assessed by comparing those who re-attended with those who did not, using meta-analysis methods as described earlier.

## Results

### Impact of the intervention

The impact of the screening and intervention programme on perceptions of health, the risk of heart attack, and the ability to reduce that risk, was assessed by comparing the intervention and randomized comparison group at one year. Overall, the perceptions of both groups were similar (Table 1), and were similar for men and women also.

Three-quarters or more of both groups perceived their health as excellent or good, and believed that it was possible for them to reduce their personal risk. About 40% of each group saw their risk of heart attack as lower or slightly lower than average. There were, however, small but significant differences between the intervention and comparison groups (Table 2).

In the intervention group, a greater proportion of patients took a more positive view of their current health ( $P < 0.001$ ) and of

their personal risk of heart attack ( $P = 0.01$ ). Compared with those in the comparison group, a smaller proportion of those in the intervention group felt that they could reduce their risk of heart disease ( $P < 0.001$ ). Stratifying by sex and by frequency of intervention (according to quintile of the risk-score distribution) revealed no existence of differences in perceptions between these subgroups.

#### Explaining the psychological impact of the intervention

This pattern of differences in perception raises the question of the extent to which they reflect actual improvements in risk status within the intervention group. This question was examined in

**Table 1.** Distribution of perceptions of current health, risk of heart attack and ability to reduce risk in men and women in the intervention and randomized comparison groups.

	Group	
	Intervention ( $n = 2984$ )	Comparison ( $n = 3576$ ) *
Current health		
Excellent	14%	13%
Good	67%	62%
Fair	18%	21%
Poor	2%	3%
Risk of heart attack		
Lower than average	32%	30%
Slightly lower than average	10%	8%
Average	41%	41%
Slightly higher than average	11%	14%
Higher than average	6%	8%
Ability to reduce risk of heart attack		
Yes, definitely	39%	46%
Yes, maybe	35%	36%
No, probably not	16%	13%
No, definitely not	9%	5%

\*One couple (man and woman) in the comparison group said they were unable to assess their risk of heart attack.

**Table 2.** Evaluation of the impact of screening and intervention on perceptions of current health, risk of heart attack and ability to reduce risk of heart attack.

	Crude* proportions (%)	Pooled† difference (%)	Pooled SE	P-value
Current health	Proportion (%) choosing excellent or good			
Intervention ( $n = 2984$ )	80.7	4.9	1.5	<0.001
Comparison ( $n = 3576$ )	75.7			
Risk of heart attack	Proportion (%) choosing lower or slightly lower than average			
Intervention ( $n = 2984$ )	42.1	3.9	1.7	0.011
Comparison ( $n = 3574$ ‡)	37.9			
Ability to reduce risk	Proportion (%) choosing definitely or probably yes			
Intervention ( $n = 2984$ )	74.6	-6.4	2.1	<0.001
Comparison ( $n = 3576$ )	81.8			

\*Calculated without regard to pairings within practices. †Differences calculated for each practice separately and then pooled over 13 practices. Pooled differences are therefore not exactly equal to difference in two values. ‡One couple (man and woman) in the comparison group said they were unable to assess their risk of heart attack.

the intervention group by determining the association between alterations in perceptions of current health, risk of heart disease, and the perceived ability to reduce that risk, and alterations in the actual risk — as measured by changes in the one-year Dundee score, its constituent risk-factors and weight (Table 3). The following results were obtained:

- Perceptions of current health changed overall in a positive direction. Perceptions were unaltered in 59% of the intervention group, while 26% became more positive and 15% became more negative. These changes were strongly associated with changes in the Dundee risk score, with the overall reduction of risk score being greatest amongst those whose views had become more positive, and smallest where they had become more negative. The reduction in overall risk score amongst those who had become more positive about their current health was due to reductions in cholesterol and weight. Changes in systolic blood pressure and quitting smoking were unrelated to changes in perception of current health.
- Perceived risk of a heart attack changed overall towards a lower personal risk. Perceptions were unaltered in 45% of those in the intervention group, while 31% saw their risk as lower, and 23% saw their risk as greater than previously. These changes were weakly associated with changes in systolic blood pressure and weight. There was no association with changes in any of the other risk factors.
- Perception of the ability to reduce the risk of heart attack changed overall towards reduced self-efficacy. This was unaltered in 76% of those in the intervention group, while 18% believed less strongly, and 6% believed more strongly in their ability to reduce their risk. These changes were strongly related to quitting smoking and changes in weight, and less strongly related to changes in cholesterol. This was not associated with systolic blood pressure, and the association with overall changes in the Dundee risk score was weaker than for weight or smoking alone. For each of the risk factors smoking, weight and cholesterol, changes towards a more negative view of the ability to influence the risk of suffering a heart attack was associated with a greater achieved reduction in risk-factor levels.

**Table 3.** Mean change in risk-factor levels according to change in perception of current health, risk of heart attack and ability to reduce risk between baseline and one-year screenings in the intervention group.\*

Risk factor	Became more negative		View was unchanged		Became more positive		P-value†
	Mean change	SE	Mean change	SE	Mean change	SE	
Current health							
N (%)	445	(15%)	1692	(59%)	737	(26%)	-
Dundee risk score (%)‡	-8	2	-13	1	-15	1	<0.001
Systolic BP (mmHg)	-6.77	0.70	-6.38	0.36	-7.55	0.58	0.4
Cholesterol (mmol/l)§	0.04	0.04	-0.06	0.02	-0.08	0.03	0.01
Weight (kg)	0.06	0.15	-0.05	0.07	-0.47	0.13	<0.001
Smoking (% quitting)¶ (n = 608)	13 (n = 97)	3	15 (n = 344)	2	11 (n = 167)	2	0.6
Risk of heart attack							
N (%)	670	(23%)	1301	(45%)	903	(31%)	-
Dundee risk score (%)‡	-11	1	-14	1	-11	1	0.9
Systolic BP (mmHg)	-5.68	0.58	-6.97	0.42	-7.19	0.51	0.07
Cholesterol (mmol/l)§	-0.03	0.03	-0.09	0.02	-0.02	0.03	0.6
Weight (kg)	-0.02	0.12	-0.11	0.08	-0.27	0.12	0.09
Smoking (% quitting)¶ (n = 608)	15 (n = 160)	13	12 (n = 264)	2	15 (n = 184)	3	0.9
Ability to reduce risk of heart attack							
N (%)	509	(17%)	2188	(76%)	177	(6%)	-
Dundee risk score (%)‡	-14	2	-12	1	-10	3	0.08
Systolic BP (mmHg)	-6.39	0.66	-6.72	0.32	-8.05	1.21	0.8
Cholesterol (mmol/l)§	-0.11	0.03	-0.04	0.02	0.04	0.07	0.01
Weight (kg)	-0.74	0.17	-0.02	0.06	0.11	0.22	<0.001
Smoking (% quitting)¶ (n = 608)	34 (n = 68)	6	12 (n = 511)	1	3 (n = 29)	3	<0.001

\*The psychological assessments were introduced just after the start of the study and so 125 men and women missed these at baseline. Among these, 110 were rescreened at one year. †Obtained from polytomous logistic regression, after adjustment for practice town.

‡Based on validated smoking habit (see below); 36 missing values, mostly due to age outside range 35-64 (women). §4 missing values due to temporary equipment failure. ¶Of 608 baseline cigarette smokers, number of breath carbon monoxide validated quitters (CO < 10 ppm).

**Table 4.** Evaluation of the impact of screening and intervention on perceptions of current health, risk of heart attack and ability to reduce risk of heart attack after correction for the effect of non-returners in the intervention group.\*

		Crude†	Pooled‡		
		proportions (%)	difference (%)	Pooled SE	P-value
Current health					
Proportion (%) choosing excellent or good					
Intervention (n=3421)	79.5	3.8	1.3	0.004	
Comparison (n=3576)	75.7				
Risk of heart attack					
Proportion (%) choosing lower or slightly lower than average					
Intervention (n=3421)	41.1	3.1	1.5	0.04	
Comparison (n=3574§)	37.9				
Ability to reduce risk					
Proportion (%) choosing definitely or probably yes					
Intervention (n=3421)	76.2	-4.9	1.6	0.002	
Comparison (n=3576)	81.8				

\*Men and women who failed to return for the one-year rescreen have been included assuming that their responses to these questions were unchanged from baseline. Among this group, 15 were recruited before the psychological assessments had been included in the questionnaire and so are excluded. †Calculated without regard to pairings within practices. ‡Differences calculated for each practice separately and then pooled over 13 practices. Pooled differences are therefore not exactly equal to difference in two values. §One couple (man and woman) in the comparison group said they were unable to assess their risk of heart attack.

*Influence of non-responders upon results*

An obvious source of potential bias in these comparisons arises from the failure of 13% ( $n=437$ ) of the intervention groups to attend the one-year rescreening. The impact of non-returners among the intervention group can be assessed by comparing their baseline responses with those of the returners. In fact, non-returners took a slightly poorer view of their health and their risk of heart attack, but were more likely to believe they had the ability to reduce their risk. If we assume that non-returners had not changed their views by the time of the rescreen, and re-analyse the data to include this subgroup, an attenuation of the intervention effect is found for each outcome of interest (Table 4). However, in no case is this attenuating effect sufficient to change the substance of the results earlier presented.

**Discussion**

We have found no evidence to suggest that participation in this population-based intervention to reduce risk of coronary heart disease raised concerns about current health, or the risk of suffering a heart attack. Indeed, our findings suggest that participation in the programme was reassuring rather than threatening, with small changes towards a more optimistic view of both current health and future coronary risk. Alterations in perceptions of current health and the risk of suffering a heart attack reflected the alterations in risk factors: those who became more optimistic about current health and the future risk of heart attack experienced the greatest reductions in risk. Although alterations in risk-factor levels were, on average, modest in the BFHS, the programme of screening and intervention itself was more intense than the services generally offered under the new GPs' health promotion contract. It is therefore reassuring that no noticeable adverse psychological effect was detected. Moreover, there was no evidence that general anxiety about current health or the risk of a heart attack was induced even at higher levels of risk and programme intensity.

The psychological impact of screening reflects, in part, the way that a screening programme is conducted. So, for example, in one study the anxiety engendered by screening for hypertension depended upon how the results were explained.<sup>14</sup> The results of the current study, therefore, cannot be taken to mean that, in general, population-based screening and interventions to reduce cardiovascular risk do not threaten people's positive perceptions of their current health or future risk of disease, but rather, that the BFHS programme as implemented did not do so. It is encouraging, nevertheless, that we found no evidence of any adverse effect of the programme overall, in either men or women, or at differing levels of programme intensity. Thus, to a certain extent our results appear generalizable. The lack of adverse effect may, in part, be attributable to the patient-centred approach adopted by the nurses who were aware of the literature on the potentially negative psychological effects of screening. In particular, they were concerned to provide reassurance and support to those at all levels of risk, and were specifically trained in techniques to do so. For example, more attention was paid to affirming small positive changes in mutable risk factors than in emphasising the impact on overall risk. It is also possible that changes in the social and cultural acceptance of screening and intervention programmes may have contributed to the lack of threat generated by the BFHS.

The most noticeable effect on participants in this preventive programme was a reduction in their perceived ability to reduce their risks of a future heart attack. There are several possible interpretations of this finding. First, it may reflect a frustration or disempowerment felt by those who did not reduce their risk.

Second, it may reflect a feeling of having reduced the risk to a personally satisfying level by those who did reduce their risks. There is some evidence to support this interpretation (Table 3). This evidence raises the concern that participation in health promotion programmes may lower the perceived ability of participants to reduce risk further, perhaps as a result of complacency with the risk reduction already achieved, even where the reduction achieved is modest. This might have the effect of reducing the subsequent willingness of participants with considerable health gain still to be achieved, to continue to follow the BFHS programme or other health-promoting advice. This effect might be seen after participation in any health promotion programme, but it may equally be a direct result of the way in which health professionals give patients information about changes in risk factors during such programmes. The place and consequences of reassurance in discussing the achievement of a small positive effect on risk to patients at continuing overall high risk, or of a lack of effect, or even a worsening of risk to patients who may have made significant efforts to change their behaviour, remain unexplored. Given the accumulating evidence of the importance of self-efficacy in the process of behavioural change,<sup>15</sup> more research in this area is needed.

Differences in baseline scores between returners and non-returners at one year in the intervention groups suggest that the results in Table 2 are an overestimate of the 'true' programme effects of the screening and intervention programme. However, it seems likely that these differences, while possibly attenuating the differences reported, would not have resulted in a qualitatively different pattern of results, conferring an acceptable validity upon the results reported here.

As the number of population-based programmes of risk assessment for cardiovascular and other diseases increases, and as the population itself adapts to the concept of preventive care, so it becomes important to expand the range of psychological outcomes in research to cover, not just raised concern about health, but the equally undesirable outcome of false reassurance.

**References**

1. Marteau TM. Health related screening: Psychological predictors of uptake and impact. In: Maes S, Leventhal H and Johnson M (eds) *International review of health psychology*. Vol. 2. Chichester: John Wiley & Sons Ltd, 1993.
2. Nathoo V. Investigation of non-responders at a cervical screening clinic in Manchester. *BMJ* 1988; **296**: 1041-1042.
3. Stoa HG. Can health screening damage your health? *J R Coll Gen Pract* 1989; **39**: 193-295.
4. Tynstra TJ, Bieleman B. The psychosocial impact of mass screening for cardiovascular risk factors. *Fam Pract* 1987; **4**: 287-290.
5. Kinlay S, Heller RF. Effectiveness and hazards of case finding for a high cholesterol concentration. *BMJ* 1990; **300**: 1545-1547.
6. Shaw C and Marteau T. Psychological impact of predicting individuals' risks of illness: a systematic review. (In preparation.)
7. Rijke R. Health in medical science: from determinism towards autonomy. In: *Towards a new science of health*. Lafalle R, Fulder R (eds). London: Routledge.
8. Family Heart Study Group. A randomized controlled trial evaluating cardiovascular screening and intervention in general practice. Principal Results of the British Family Heart Study. *BMJ* 1994; **308**: 313-320.
9. Ware JE, Sherbourne CD. The MOS 36-item short-form health survey (SF-36): I. Conceptual framework and item selection. *Med Care* 1992; **30**: 473-83.
10. Shaper AG, Pocock SJ, Phillips AN, Walker MA. A scoring system to identify men at high risk of a heart attack. *Health Trends* 1987; **19**: 37-39.
11. Tunstall-Pedoe H. The Dundee coronary risk-disk for management of change in risk factors. *BMJ* 1991; **303**: 744-747.
12. Der Simonion R, Laird N. Meta-analysis in clinical trials. *Controlled Clin Trials* 1986 **7**:177-178.
13. McCullagh P. Regression models for ordinal data. *J R Statist Soc B* 1980; **42**:109-142.

14. Rudd P, Price MG, Graham LE, Beilstein BA, Tarbell SJH, Bacchetti P, Fortmann SP. Consequences of worksite hypertension screening. *A J Med* 1986. 80:853-861.
15. Schwarzer R. *Self-efficacy: thought control of action*. Hemisphere Publishing Corporation: Washington, 1992.

#### Acknowledgements

The study was funded by the Family Heart Association with an educational grant from Merck Sharp and Dohme, the family health services authorities and Fife Health Board, Boehringer Mannheim UK, Wessex Regional Health Authority, the Health Education Authority, the Scottish Home and Health Department, and the Department of Health. Theresa Marteau is supported by The Wellcome Trust.

#### Address for correspondence

Professor TM Marteau, Psychology and Genetics Research Group, UMDS, Guy's Campus, London SE1 9RT.

#### Study Day on HIV & Aids

Friday 13 December 1996

The RCGP Working Party on HIV/AIDS is organising a Study Day which will address two important areas for health professionals - Home Care of Patients with HIV/AIDS and Issues around HIV and pregnancy.

The Delegate Fee (inclusive of VAT) is £30.00. PGEA to be applied for.

For further details please contact: RCGP Courses, 14 Princes Gate, Hyde Park, London SW1 1PU. Tel: 0171 823 9703 Fax: 0171 225 3047

## Conference 2000

PGEA Conference abroad

### Enjoy -

**Your PG education in quality resorts.**

**A break from routine,**

**Hear top speakers -**

**and have Tax-Deductible PGEA**

*Families welcome too.*

November 21 - 29, 1996

**Goa, India**

Luxury hotel, sunshine, glorious beaches and tour Northern India

January 12 to 19, 1997

**Courmayeur, Italy**

**Ski the Italian Job**

February 28 to March 6, 1997

**Luxor, Egypt**

Hilton Hotel, fascinating trips, great value

March 22, 1997, for 7, 10 or 14 days

**Banff, Canada**

**Banff Springs Hotel**

**Canada's premier ski resort**

Call 01691 650290 for details or fax 01691 670302  
31 - 83 Willow Street, Osprey, Shropshire SY11 1AJ

## Under one roof

At The Royal Society of Medicine you will find a unique range of academic and recreational services all within one building in the heart of London. For almost 200 years we have been a source of education and relaxation for doctors and health care workers.

## 350 conferences and meetings every year

with CME accreditation for all but a few, covering every medical speciality, with experts from around the world.

## 500,000 medical books and 2,000 journals

in Europe's largest postgraduate medical library with access to all major databases.

and...

the Society's own highly respected Journal every month • 37 single and twin hotel rooms (three star) • A superb restaurant, bar and buttery • social events ranging from tutored wine tastings to performances of string quartets, all publicised in a quarterly newsletter • a fitness centre and rooms for relaxation, reading and reflection.



The ROYAL  
SOCIETY of  
MEDICINE

To find out more  
about this unique  
institution and how  
you can become part  
of it telephone  
0171 290 2991 for  
an information pack.

The Royal Society of Medicine, 1 Wimpole Street, London W1M 8AE