“After decades of close, focused work in variable light, Mercator was finding that he was unable to distinguish letters in broad daylight. His own diagnosis of the condition was that it was due to normal declining of sharpness in vision, which comes with age, but that thick and viscous humours had enveloped the optic nerve. The Duke’s personal physician, Reiner Solenander, prescribed the most reliable remedy known: the flower euphrasy, or “eyebright.” Mercator was instructed to dry it and then to drink it as a solution in good Rhinelan wine, the doses to be taken in the morning, before lunch, at midday, before and during dinner. After several months Mercator did indeed notice an improvement. “Thanks to this herb, the humours have been wonderfully dissolved, diluted and washed out of my head. However, as it is the sharpness of vision which is weakening I think it more useful to chew fennel seeds without neglecting to keep up a moderate dose of euphrasy.” (Crane, Nicholas. _Mercator: the man who mapped the planet_. New York: Henry Holt and Company, 2003:235)

The efficacy of statins in preventing coronary artery disease and cerebral vascular disease is now undeniable. Yet the cost of these medications remains in many cases prohibitive. In a double blind placebo controlled design 35 patients who met the national cholesterol education programme adult treatment panel guidelines were treated with alternate day dosing of atorvastatin. Although higher doses of the drugs were used on alternate days the results suggest that alternate day administration can produce a comparable reduction in LDL-C compared to daily dosage at a considerable cost saving. (_American Heart Journal_ 2002; 144: 674–7)

Ophthalmologists are commonly asked to evaluate the patient with internal carotid artery disease, and are asked to distinguish useful vision from retinal or other ocular manifestations related to it. In a study from Seoul, Korea, diffusion weighted imaging was used to detect small or multiple ischaemic lesions associated with stroke in the internal carotid artery distribution. In this study acute ischaemic lesions associated with internal carotid artery occlusive disease were mainly multiple. Border zone infarction was mostly associated with territorial infarction. These results support the notion that embolism is the predominant stroke mechanism in internal carotid artery occlusive disease. (_Archives of Neurology_ 2002; 59: 1577–82)

An effective, widely accepted male contraceptive medication remains elusive. Now it appears that a drug recently approved in Europe to treat the genetic disorder Gaucher’s disease may be a hormone free male contraceptive. Male mice given the drug N-butyldeoxynojirimytin (NB-DNJ) for up to 6 months became completely, but reversibly, infertile. This is equivalent to a dose of less than one tenth of that used for treatment of patients with Gaucher’s disease. (_Proceedings of the National Academy of Sciences USA_ 2002; 99: 17173–8)

The importance of gene mutation in some forms of breast cancer is now well established. According to new research from the University of Toronto in Canada, women with gene mutations that increase their likelihood to develop breast cancer have an even greater risk if they use oral contraceptives. Women with mutations in the BRCA1 and BRCA2 genes have a 50–80% lifetime risk of developing breast cancer. Women with these mutations, using oral contraceptives for at least 5 years, and who used them before the age of 30 and first used them before 1975 (when oral contraceptives had a higher oestrogen content) had an additional increased risk of breast cancer of 29–42%. (_Journal of the National Cancer Institute_ 2002; 94: 1773–9)

A recent UN report estimates that 42 million people worldwide are now infected with HIV. Nearly half of the 4.2 million newly infected adults are women and a disproportionate number of these (800 000) are younger than 15 years of age. Sub-Saharan Africa remains the most severely infected region with an estimated 2.94 million people infected but no news, notably eastern Europe and the Central Asian Republic, are experiencing a rapid expansion of the infection. (See _AIDS Epidemic Update_ 2000 www.unaids.org/worldaidsday/2002/press/Epiupdate.html)

Most countries prohibit television advertising of prescription only drugs. Unfortunately, this is not the case in the United States. Several studies have now shown that television advertising has a pronounced effect on patterns of drug use. The general accounting office has reported that sales of drugs not advertised as heavily on TV had an increase in sales of only 4% whereas heavily advertised drugs rose by 25%. With healthcare costs soaring one wonders how much longer countries like the United States will permit prescription drug advertisements on television. (www.gao.gov/news/itmes/d03177.pdf)

During the past 10 years several immunomodulatory agents have become available for the treatment of multiple sclerosis. Existing data suggest that these agents have similar effects on several physical and inflammatory measures. Interferon beta-1A has demonstrated an efficacy in slowing cognitive progression in relapsing multiple sclerosis. One disadvantage of interferon beta-1A is the possibility of immunogenicity, which may occur more often with subcutaneous administrations. (_Archives of Internal Medicine_ 2002; 162: 2161–9)

The US reaction to 11 September has created a number of adverse consequences. For example, in tightening restrictions on international visits to the United States scientific and medical research has been profoundly affected. In an open letter from the presidents of the National Academy of Sciences, The National Academy of Engineering, and Institute of Medicine, this problem is stated clearly “Recent efforts by our government to constrain the flow of international visitors in the name of national security are having serious unintended consequences for American science, engineering and medicine. The evidence we have collected reveals that ongoing research collaborations have been hampered; outstanding young scientists, engineers and health researchers have been prevented from or delayed in entering this country.” (_JAMA_ 2003: 289: 290)

The increase in the number of patients affected with hepatitis C virus continues to increase. Regrettably, in a study from Johns Hopkins University of young drug users who underwent semiannual interviews, HIV and HCV antibody testing, and pretest and post-test counselling, no change in high risk behaviour could be documented even with extensive counselling about the risks of hepatitis C infection. These patients continued to share syringes, needles, and other injection paraphernalia. (_Clinical Infectious Diseases_ 2002; 35: 783–8)