

Atorvastatin (Lipitor) was licensed at the end of 1997 and this will become generally available in 1998. This drug is able to reduce LDL-cholesterol further than existing statin drugs and can also be an effective means to reduce triglycerides. It remains to be proven though whether we need to use a drug that produces maximum LDL-cholesterol reduction or whether a threshold 15–20% reduction in LDL-cholesterol is sufficient. The latter point

has already been confirmed in several trials.

Finally, knowledge is beginning to emerge about the effects of lipid therapy on ancillary pathways, for example, effects on endothelial function, smooth muscle cell proliferation, matrix composition, platelet function and so on. This will lead to new insights into plaque stabilisation and heart disease prevention. Regrettably, the heart attack rate is still substantial despite effective and safe lipid therapy.

Nutrition

Nutritional Deficiencies Underpin Some Clinical Disorders

Biologically Active Compounds Identified in Food Offer New Treatment Options

Nutrition science is moving ahead in leaps and bounds. The most exciting recent development is that a host of biologically active compounds in plant foods, now referred to as 'phytochemicals', are being discovered, whose inadequate intake may underpin a number of clinical disorders. These disorders are likely to be referred to as 'phytochemical disorders'. They probably include, in part, some of the features of:

- The menopause as a 'phyto-oestrogen deficiency disorder'
- Maculopathy, on account of the contribution to macular function by non-provitamin A carotenoids such as lycopene, lutein and zeaxanthin
- Immune dysfunction related to inadequate intakes of flavonoids, glutathione and omega-3 fatty acids
- Prostatic disease – both prostatomegaly and prostatic cancer – in relation to β -sitosterol intake for the former and isoflavone and lycopene intakes for the latter
- Breast cancer for similar reasons to those for prostatic cancer insofar as isoflavone intake is concerned
- Colorectal cancer in relation to a range of phytochemical intakes from various fruits and vegetables and whole grain cereals
- Cardiovascular disease because of the role of certain phytochemicals as antioxidants, others as regulators of endothelial function and yet others as modulators of myocardial function.

Challenges Remain in Determining Relationship Between Nutrition and Health

Current problems and unanswered questions include:

- The extent to which there are nutritional contributors to behavioural disorders and to cognitive impairment
- The ability to adequately assess energy balance, especially in relation to proneness to obesity and to various wasting disorders
- The role of fetal and early childhood nutrition and development in pre-disposing to chronic non-communicable diseases such as abdominal obesity, diabetes and cardiovascular disease in later life
- The quantifying of food intake and the modelling of intake in a more comprehensive way than has been possible by referring to either nutrients or foods alone. Studies such as the Food Habits in Later Life studies in elderly Greeks have shown that the sum of the diet is greater than its combined parts.^[1]

Nutritional Deficiency Assessed in Cardiovascular Disease

In food nutrition and cardiovascular disease there will be a rapid progression towards the assessment of micronutrient and phyto-oestrogen deficiency in relation to cardiovascular risk. The most important strategy will be to assess intake in more cost and time-effective ways, such as short questionnaires built in to teleconsultation. In the laboratory, homocysteine measurements will become



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clinically routine to indicate relatively deficient intakes of folate, vitamin B₁₂ and vitamin B₆, and the measurement of micronutrients such as vitamin E and carotenoids will be used to evaluate cardiovascular risk.

Key developments for coming years will include a more societal rather than purely clinical approach to the growing epidemic of obesity and its health consequences.

Traditional Foods Challenged

The emergence of more and more novel foods ('functional foods') and the repositioning of older traditional foods to address changing food-health relationships will be in evidence. This will be reflected, in part, by the development of health claims on food packages.

New Emphasis on Nutrition and Ageing
Nutrition and ageing will be an area of growing interest and importance, with efforts to compress morbidity towards the end of life. But the successful approaches will come from a combination of strategies of a sociological kind, with emphasis on:

- Social activities and social networks
- Minimising alcohol excess, tobacco use and substance abuse
- Regular physical activity as perhaps one of the most important measures of all
- The progressive diversification of the human diet as we learn that food variety is predictive of longevity.

Reference

1. Trichopoulou A, Kouris-Blazos A, Wahlqvist ML, et al. Diet and overall survival in elderly people. *Br Med J* 1995; 311: 1457-60

Current Therapeutics Supplements

The image displays three overlapping covers of 'Current Therapeutics' supplements. The leftmost cover is titled 'Symptom Control in Palliative Care' and features a dandelion illustration. The middle cover is the main 'Current Therapeutics' issue, dated May 1997, with a stethoscope graphic and a 'GUIDE CHARTS' list. The rightmost cover is 'Women's Health', dated October 1997, featuring a group of women. Each cover includes the 'Adis' logo.

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