

## Appendix.

### Changing definitions of hypercholesterolaemia and guidelines for treatment over time

The first guidance on 'hypercholesterolaemia', from the American National Cholesterol Education Program (NCEP) in 1988, defined total cholesterol levels of <math><5.2\text{mmol/l}</math> (<math><200\text{mg/dl}</math>) as 'desirable', 5.2 to <math><6.2\text{mmol/l}</math> (200-239 mg/dl) as 'borderline-high', and  $\geq 6.2\text{mmol/l}$  ( $\geq 240\text{mg/dl}$ ) as 'high'.<sup>a1</sup> Lipoprotein analysis was recommended for adults with high total cholesterol or with borderline-high total cholesterol and either coronary heart disease (CHD) or two other CHD risk factors, with drug treatment recommended for those with LDL-cholesterol  $\geq 4.1\text{mmol/l}$  ( $\geq 160\text{mg/dl}$ ) with CHD or two other CHD risk factors and for anyone with LDL-cholesterol  $\geq 4.9\text{mmol/l}$  ( $\geq 190\text{mg/dl}$ ) after dietary interventions.<sup>a1</sup> In 1994, NCEP ATP (Adult Treatment Panel) II extended the indications for lipoprotein analysis to those with desirable total cholesterol but low HDL-cholesterol (<math><0.9\text{mmol/l}</math>, 35mg/dl). LDL-based criteria for diet then drug treatment were extended to include drug treatment for anyone with existing CHD with LDL-cholesterol  $\geq 3.4\text{mmol/l}$  ( $\geq 130\text{mg/dl}$ ).<sup>a2</sup> By 2001, NCEP ATP III recommended measuring the fasting lipid profile every five years in all adults aged 20 and older, rather than targeting LDL-cholesterol assessment on high risk individuals. ATP III also added a greater focus on treating individuals with multiple risk factors, recommending treatment for those with 10-year risk of CHD  $\geq 20\%$ .<sup>a3</sup>

The first European guidelines were published by the European Atherosclerosis Society (EAS) in 1987<sup>a4</sup>, the same year in which two sets of British guidelines were

published,<sup>a5 a6</sup> with greater detail provided the following year.<sup>a7</sup> British guidelines were revised in 1993, recommending lipid testing in those with overt vascular disease, clinical stigmata of hyperlipidaemia, with a relevant family history, or with risk factors such as hypertension, diabetes or obesity.<sup>a8</sup> The 1994 EAS recommendations on hypercholesterolaemia for primary prevention were to treat with drugs men aged <60 with, after dietary intervention, a total cholesterol  $\geq 8$ mmol/l; a 10-year risk of developing ischaemic heart disease >20% and cholesterol 7-8mmol/l; or a cholesterol 6-7mmol/l and a 'very high' risk of developing heart disease.<sup>a9</sup> In 1997, the English Standing Medical Advisory Committee produced advice on the use of statins.<sup>a10</sup> The following year, the Joint British Societies published their recommendations (JBS).<sup>a11</sup> In 2000, the National Service Framework for Coronary Heart Disease enshrined those recommendations as performance targets for England.<sup>a12</sup> In 2005, the recommendations for defining and treating hypercholesterolaemia were superseded by JBS2.<sup>a13</sup> Guidance published by NICE (English National Institute for Health and Clinical Excellence) in 2006 confirmed the JBS2 recommendation for statin use in England for prevention of cardiovascular disease in adults who have a 20% or greater 10-year risk of developing cardiovascular disease.<sup>a14</sup> The Scottish Office and subsequently the Scottish Executive have not set thresholds for treatment in Scotland but clinicians have used the Joint British Societies' guidelines and the recommendations of the relevant Scottish Intercollegiate Guidelines Network (SIGN) publication.<sup>a15</sup>

## References

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