**Table 1** Case 1: laboratory results and treatment response

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Laboratory test** | **2001-10** | **2001-11** | **2002-01** | **2003-07** | **2004-07** | **Usual results** |
| Age (years) | 3 | 3 | 4 | 5 | 6 |  |
| TC | 18.2 | 17.9 | 12.7 | 14.3 | 13.1 | <5.20 mmol/L |
| **LDL-C** | 16.3 | 15.3 | 10.8 | 13.7 | 11.7 | <3.12 mmol/L |
| HDL-C | 1.1 | 1.8 | 1.0 | 1.2 | 0.9 | >1.04mmol/L |
| Triglycerides | 1.8 | 1.6 | 1.7 | 1.6 | 0.9 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 5mg daily | Atorvastatin 10mg daily and probucol 500mg daily | Atorvastatin 10mg daily and probucol 500mg daily | Atorvastatin 20mg daily and probucol 500mg daily | Atorvastatin 30mg daily and probucol 500mg daily |  |
| **Laboratory test** | **2004-12** | **2005-11** | **2006-5** | **2006-11** | **2007-06** | **Usual results** |
| Age(years) | 6 | 7 | 8 | 8 | 9 |  |
| TC | 11.8 | 12.2 | 9.8 | 9.6 | 9.6 | <5.20 mmol/L |
| **LDL-C** | 10.7 | 10.7 | 8.9 | 6.0 | 6.8 | <3.12 mmol/L |
| HDL-C | 0.4 | 0.8 | 0.5 | 0.5 | 0.4 | >1.04mmol/L |
| Triglycerides | 0.7 | 1.4 | 0.7 | 0.9 | 0.7 | <2.30mmol/L |
| **Treatment** | Atorvastatin 30mg daily and probucol 750mg daily | Atorvastatin 40mg daily, probucol 750mg daily and ezetimibe 5mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 5mg daily\* |  |
| **Laboratory test** | **2008-01** | **2008-04** | **2009-02** | **2010-07** | **2013-07** | **Usual results** |
| Age(years) | 10 | 10 | 11 | 12 | 15 |  |
| TC | 11.1 | 10.3 | 9.9 | 8.5 | 8.0 | <5.20 mmol/L |
| **LDL-C** | 9.1 | 6.8 | 6.5 | 5.2 | 7.1 | <3.12 mmol/L |
| HDL-C | 0.2 | 0.4 | 0.4 | 2.0 | 0.4 | >1.04mmol/L |
| Triglycerides | 1.1 | 0.7 | 0.9 | 1.1 | 0.7 | <2.30 mmol/L |
| **Treatment** | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily |  |

**Abbreviation****s:** TC, total cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol

**Table 2**  Case 2: laboratory results and treatment response

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Laboratory test** | **2007-02** | **2007-08** | **2007-9** | **2007-10** | **2007-11** | **Usual results** |
| Age(years) | 8 | 8 | 8 | 8 | 8 |  |
| Total cholesterol |  | 15.1 | 11.7 | 8.3 | 6.9 | <5.20 mmol/L |
| LDL-C | ~15 | 12.6 | 10.0 | 5.9 | 4.4 | <3.12 mmol/L |
| HDL-C |  | 1.8 | 1.5 | 1.3 | 0.9 | >1.04mmol/L |
| Triglycerides |  | 1.0 | 0.7 | 0.7 | 0.4 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 10mg daily | Atorvastatin 10mg daily, and ezetimibe 5mg daily | Atorvastatin 20mg daily, and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 500mg daily and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 750mg daily and ezetimibe 5mg daily |  |
| **Laboratory test** | **2008-03** | **2008-05** | **2008-07** | **2008-12** | **2009-03** | **Usual results** |
| Age(years) | 9 | 9 | 9 | 9 | 10 |  |
| Total cholesterol | 7.0 | 6.1 | 6.9 | 6.3 | 8.1 | <5.20 mmol/L |
| LDL-C | 5.2 | 4.4 | 5.4 | 4.7 | 6.5 | <3.12 mmol/L |
| HDL-C | 0.8 | 0.7 | 0.6 | 0.7 | 0.9 | >1.04mmol/L |
| Triglycerides | 0.5 | 0.6 | 0.7 | 0.5 | 0.4 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 30mg daily, probucol 1000mg daily and ezetimibe 5mg daily |  |
| **Laboratory test** | **2009-07** | **2010-09** | **2011-08** | **2012-07** | **2013-06** | **Usual results** |
| Age(years) | 10 | 11 | 12 | 13 | 14 |  |
| Total cholesterol | 8.6 | 7.6 | 9.5 | 10.0 | 6.5 | <5.20 mmol/L |
| LDL-C | 7.5 | 6.4 | 7.5 | 7.8 | 5.6 | <3.12 mmol/L |
| HDL-C | 1.1 | 0.6 | 0.9 | 0.9 | 0.8 | >1.04mmol/L |
| Triglycerides | 0.8 | 0.6 | 0.5 | 0.5 | 0.2 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 30mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 30mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 30mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily |  |

**Table 3**  Case 3: laboratory results and treatment response

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Laboratory test** | **2005-05** | **2005-10** | **2005-12** | **2006-04** | **2006-06** | **Usual results** |
| Age(years) | 2 | 2 | 2 | 3 | 3 |  |
| Total cholesterol |  | 18.8 | 19.2 | 20.0 | 20.6 | <5.20 mmol/L |
| LDL-C | 19.6 | 16.3 | 18.8 | 19.2 | 15.6 | <3.12 mmol/L |
| HDL-C | 0.9 | 0.4 | 0.6 | 0.4 | 1.9 | >1.04mmol/L |
| Triglycerides | 1.0 | 1.1 | 1.4 | 0.9 | 0.9 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 10mg daily | Atorvastatin 10mg daily | Atorvastatin 15mg daily | Atorvastatin 20mg daily and probucol 500mg daily | Atorvastatin 20mg daily and probucol 1000mg daily |  |
| **Laboratory test** | **2006-09** | **2007-02** | **2007-04** | **2007-07** | **2007-11** | **Usual results** |
| Age(years) | 3 | 4 | 4 | 4 | 4 |  |
| Total cholesterol | 15.7 | 14.5 | 14.1 | 13.7 | 16.2 | <5.20 mmol/L |
| LDL-C | 13.1 | 12.1 | 11.8 | 10.0 | 12.9 | <3.12 mmol/L |
| HDL-C | 0.4 | 0.3 | 0.3 | 0.3 | 0.1 | >1.04mmol/L |
| Triglycerides | 1.2 | 1.1 | 0.9 | 1.3 | 1.1 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 20mg daily and probucol 1000mg daily | Atorvastatin 20mg daily and probucol 1000mg daily | Atorvastatin 20mg daily and probucol 1000mg daily | Atorvastatin 20mg daily and probucol 1000mg daily | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily |  |
| **Laboratory test** | **2008-01** | **2009-03** | **2010-02** | **2010-12** | **2011-06** | **Usual results** |
| Age(years) | 5 | 6 | 7 | 7 | 8 |  |
| Total cholesterol | 14.1 | 12.5 | 13.7 | 14.7 | 14.8 | <5.20 mmol/L |
| LDL-C | 11.6 | 11.1 | 10.5 | 12.7 | 13.3 | <3.12 mmol/L |
| HDL-C | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | >1.04mmol/L |
| Triglycerides | 1.2 | 1.1 | 2.4 | 0.9 | 1.2 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily |  |
| **Laboratory test** | **2012-06** | **2013-04** | **2014-04** |  |  | **Usual results** |
| Age(years) | 9 | 10 | 11 |  |  |  |
| Total cholesterol | 14.7 | 14.6 | 14.7 |  |  | <5.20 mmol/L |
| LDL-C | 13.0 | 13.6 | 11.2 |  |  | <3.12 mmol/L |
| HDL-C | 0.2 | 0.2 | 0.5 |  |  | >1.04mmol/L |
| Triglycerides | 1.1 | 0.6 | 0.9 |  |  | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily |  |  |  |

**Table 4** Case 4: laboratory results and treatment response

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Laboratory test** | **2008-03** | **2008-07** | **2009-01** | **2009-03** | **2009-04** | **Usual results** |
| Age(years) | 2 | 2 | 3 | 3 | 3 |  |
| Total cholesterol | 22.9 | 21.2 | 20.2 | 17.3 | 17.1 | <5.20 mmol/L |
| LDL-C | 19.8 | 17.1 | 18.4 | 15.6 | 13.9 | <3.12 mmol/L |
| HDL-C | 0.9 | 0.6 | 0.4 | 0.6 | 0.6 | >1.04mmol/L |
| Triglycerides | 1.5 | 1.5 | 1.0 | 1.3 | 0.6 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 10mg daily | Atorvastatin 10mg daily | Atorvastatin 20mg daily and probucol 500mg daily | Atorvastatin 20mg daily and probucol 750mg daily | Atorvastatin 20mg daily and probucol 750mg daily |  |
| **Laboratory test** | **2009-06** | **2009-08** | **2009-10** | **2009-12** | **2010-01** | **Usual results** |
| Age(years) | 3 | 3 | 3 | 3 | 4 |  |
| Total cholesterol | 16.1 | 13.7 | 15.4 | 12.0 | 12.4 | <5.20 mmol/L |
| LDL-C | 14.0 | 12.0 | 14.1 | 10.6 | 10.6 | <3.12 mmol/L |
| HDL-C | 0.5 | 0.7 | 0.7 | 0.4 | 0.5 | >1.04mmol/L |
| Triglycerides | 1.3 | 1.1 | 0.9 | 0.9 | 0.8 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 20mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 30mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 5mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily |  |
| **Laboratory test** | **2010-03** | **2010-05** | **2011-03** | **2011-08** | **2011-12** | **Usual results** |
| Age(years) | 4 | 4 | 5 | 5 | 5 |  |
| Total cholesterol | 11.0 | 11.9 | 12.1 | 11.8 | 11.4 | <5.20 mmol/L |
| LDL-C | 8.7 | 9.2 | 9.8 | 10.2 | 10.9 | <3.12 mmol/L |
| HDL-C | 0.5 | 0.8 | 0.6 | 0.5 | 0.3 | >1.04mmol/L |
| Triglycerides | 1.0 | 1.0 | 0.7 | 1.5 | 0.8 | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily |  |
| **Laboratory test** | **2014-03** | **2014-06** |  |  |  | **Usual results** |
| Age(years) | 8 | 8 |  |  |  |  |
| Total cholesterol | 15.4 | 12.2 |  |  |  | <5.20 mmol/L |
| LDL-C | 11.1 | 9.6 |  |  |  | <3.12 mmol/L |
| HDL-C | 0.9 | 0.7 |  |  |  | >1.04mmol/L |
| Triglycerides | 1.0 | 0.8 |  |  |  | <2.30 mmol/L |
|  |  |  |  |  |  |  |
| **Treatment** | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily | Atorvastatin 40mg daily, probucol 1000mg daily and ezetimibe 10mg daily |  |  |  |  |