

Diagnostic Assessment Report commissioned by the NIHR HTA Programme on behalf of the National Institute for Health and Care Excellence – Addendum

Title: Rapid Tests for Group A Streptococcal infections in people with sore throat

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Changing the cost of Cobas Strep A Assay on Liat system (Roche Diagnostics) from £64.63 in the base-case to £35 (new price supplied by Roche Diagnostics) changed the ICER from £4,391,332 - £7,893,857 per QALY ranged (adult secondary care and child primary care models respectively) to £2,362,784 and £5,253,699 (adult secondary care and child primary care models respectively) per QALY gained compared with usual care.

Table 1: Adult primary care model: Base-case cost-effectiveness results - cost of Cobas Strep A Assay on Liat system (Roche Diagnostics) changed from £64.63 in the base-case to £35 (new price supplied by Roche Diagnostics)

| TestID | Test Name | Mean costs / 1000 individuals | Mean QALYs / 1000 individuals | Inc. Costs / 1000 individuals | Inc. QALYS / 1000 individuals | ICER versus usual care |
|--------|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------|
| | Usual care (Clinical scoring based on Centor ≥ 3 plus clinical assessment) | £49,147 | 859.82458955 | £0 | 0.0000000 | - |
| 1 | Clearview Exact Strep A cassette (Abbott) | £56,180 | 859.82063008 | £7,033 | -0.0039595 | Dominated |
| 2 | Clearview Exact Strep A dipstick – test strip (Abbott) | £55,980 | 859.82063008 | £6,833 | -0.0039595 | Dominated |
| 3 | BD Veritor Plus system group A Strep Assay - cassette (Beckton Dickinson) | | | | | |
| 4 | Strep A rapid test - cassette (Biopanda Reagents) | £55,442 | 859.82769587 | £6,295 | 0.0031063 | £2,026,496 |
| 5 | Strep A rapid test – test strip (Biopanda Reagents)* | £55,397 | 859.82769587 | £6,250 | 0.0031063 | £2,012,006 |
| 6 | NADAL Strep A - test strip (nal von minden GmbH) | £54,394 | 859.82846603 | £5,248 | 0.0038765 | £1,353,677 |
| 7 | NADAL Strep A - cassette (nal von minden GmbH) | £54,444 | 859.82846603 | £5,298 | 0.0038765 | £1,366,577 |
| 8 | NADAL Strep A plus - cassette (nal von minden GmbH) | £54,469 | 859.82846603 | £5,323 | 0.0038765 | £1,373,029 |
| 9 | NADAL Strep A plus - test strip (nal von minden GmbH) | £54,419 | 859.82846603 | £5,273 | 0.0038765 | £1,360,126 |
| 10 | NADAL Strep A scan test - cassette (nal von minden GmbH) | £54,584 | 859.82846603 | £5,438 | 0.0038765 | £1,402,700 |
| 11 | OSOM Strep A test – test strip (Sekisui Diagnostics) | | | | | |
| 12 | QuikRead Go Strep A test kit (Orion Diagnostica) | £56,083 | 859.82810269 | £6,936 | 0.0035131 | £1,974,319 |
| 13 | Alere TestPack Plus Strep A - cassette (Abbott) | £54,781 | 859.82751669 | £5,634 | 0.0029271 | £1,924,717 |
| 14 | Bionexia Strep A plus - cassette (Biomerieux) | | | | | |
| 15 | Bionexia Strep A dipstick – test strip (Biomerieux) | | | | | |
| 16 | Biosynex Strep A - cassette (Biosynex) | | | | | |
| 17 | Sofia Strep A FIA (Quidel) | | | | | |
| 18 | ALERE i Strep A (Abbott) | | | | | |
| 19 | ALERE i Strep A 2 (Abbott) | £59,837 | 859.82824206 | £10,691 | 0.0036525 | £2,926,915 |
| 20 | Cobas Strep A Assay on Liat system (Roche Diagnostics) | £63,868 | 859.82824206 | £14,722 | 0.0036525 | £4,030,533 |
| 21 | Xpert Xpress Strep A (Cepheid) | £63,323 | 859.82854357 | £14,177 | 0.0039540 | £3,585,436 |

¹Test accuracy data for Biopanda Reagents Strep A rapid test – test strip not available, assumed the strip has same test accuracy as the cassette version of the test

Note: Missing cost-effectiveness estimates are for the tests where either test accuracy or cost data were not available

Table 2: Adult secondary care model: Base-case cost-effectiveness results - cost of Cobas Strep A Assay on Liat system (Roche Diagnostics) changed from £64.63 in the base-case to £35 (new price supplied by Roche Diagnostics)

| TestID | Test Name | Mean costs / 1000 individuals | Mean QALYs/ 1000 individuals | Inc. Costs / 1000 individuals | Inc. QALYS / 1000 individuals | ICER |
|--------|---|-------------------------------|------------------------------|-------------------------------|-------------------------------|-------------|
| | Usual care (Clinical scoring based on Centor ≥ 3 plus clinical assessment) | £49,147 | 859.82458955 | £0 | 0.0000000 | |
| 1 | Clearview Exact Strep A cassette (Abbott) | £51,103 | 859.82063008 | £1,957 | -0.0039595 | Dominated |
| 2 | Clearview Exact Strep A dipstick - test strip (Abbott) | £50,903 | 859.82063008 | £1,757 | -0.0039595 | Dominated |
| 3 | BD Veritor Plus system group A Strep Assay - cassette (Becton Dickinson) | | | | | |
| 4 | Strep A rapid test - cassette (Biopanda Reagents) | £50,365 | 859.82769587 | £1,219 | 0.0031063 | £392,342 |
| 5 | Strep A rapid test - test strip (Biopanda Reagents)* | £50,320 | 859.82769587 | £1,174 | 0.0031063 | £377,852 |
| 6 | NADAL Strep A - test strip (nal von minden GmbH) | £49,318 | 859.82846603 | £171 | 0.0038765 | £44,184 |
| 7 | NADAL Strep A - cassette (nal von minden GmbH) | £49,368 | 859.82846603 | £221 | 0.0038765 | £57,085 |
| 8 | NADAL Strep A plus - cassette (nal von minden GmbH) | £49,393 | 859.82846603 | £246 | 0.0038765 | £63,537 |
| 9 | NADAL Strep A plus - test strip (nal von minden GmbH) | £49,343 | 859.82846603 | £196 | 0.0038765 | £50,636 |
| 10 | NADAL Strep A scan test - cassette (nal von minden GmbH) | £49,508 | 859.82846603 | £361 | 0.0038765 | £93,211 |
| 11 | OSOM Strep A test - test strip (Sekisui Diagnostics) | | | | | |
| 12 | QuikRead Go Strep A test kit (Orion Diagnostica) | £51,136 | 859.82474622 | £1,990 | 0.0001567 | £12,700,432 |
| 13 | Alere TestPack Plus Strep A - cassette (Abbott) | £49,713 | 859.82627789 | £566 | 0.0016883 | £335,358 |
| 14 | Bionexia Strep A plus - cassette (Biomerieux) | | | | | |
| 15 | Bionexia Strep A dipstick - test strip (Biomerieux) | | | | | |
| 16 | Biosynex Strep A - cassette (Biosynex) | | | | | |
| 17 | Sofia Strep A FIA (Quidel) | | | | | |
| 18 | ALERE i Strep A (Abbott) | | | | | |
| 19 | ALERE i Strep A 2 (Abbott) | £54,761 | 859.82824206 | £5,614 | 0.0036525 | £1,537,126 |
| 20 | Cobas Strep A Assay on Liat system (Roche Diagnostics) | £57,777 | 859.82824206 | £8,630 | 0.0036525 | £2,362,784 |
| 21 | Xpert Xpress Strep A (Cepheid) | £51,141 | 859.82854357 | £1,994 | 0.0039540 | £504,287 |

¹Test accuracy data for Biopanda Reagents Strep A rapid test – test strip not available, assumed the strip has same test accuracy as the cassette version of the test

Note: Missing cost-effectiveness estimates are for the tests where either test accuracy or cost data were not available

Table 3: Children primary care model - Base-case cost-effectiveness results - cost of Cobas Strep A Assay on Liat system (Roche Diagnostics) changed from £64.63 in the base-case to £35 (new price supplied by Roche Diagnostics)

| TestID | Test Name | Mean costs / 1000 individuals | Mean QALYs / 10,000 individuals | Inc. Costs / 10,000 individuals | Inc. QALYS / 10,000 individuals | ICER versus usual care |
|--------|---|-------------------------------|---------------------------------|---------------------------------|---------------------------------|------------------------|
| | Usual care (Clinical scoring based on Centor ≥ 3 plus clinical assessment) | £50,185 | 939.77019917 | £0 | 0.0000000 | |
| 1 | Clearview Exact Strep A cassette (Abbott) | £57,773 | 939.76305927 | £7,588 | -0.0071399 | Dominated |
| 2 | Clearview Exact Strep A dipstick – test strip (Abbott) | £57,554 | 939.76305927 | £7,369 | -0.0071399 | Dominated |
| 3 | BD Veritor Plus system group A Strep Assay - cassette (Becton Dickinson) | | | | | |
| 4 | Strep A rapid test - cassette (Biopanda Reagents) | £56,899 | 939.77244279 | £6,715 | 0.0022436 | £2,992,743 |
| 5 | Strep A rapid test – test strip (Biopanda Reagents)* | £56,850 | 939.77244279 | £6,665 | 0.0022436 | £2,970,792 |
| 6 | NADAL Strep A - test strip (nal von minden GmbH) | £55,952 | 939.77347194 | £5,768 | 0.0032728 | £1,762,306 |
| 7 | NADAL Strep A - cassette (nal von minden GmbH) | £56,007 | 939.77347194 | £5,822 | 0.0032728 | £1,779,026 |
| 8 | NADAL Strep A plus - cassette (nal von minden GmbH) | £56,035 | 939.77347194 | £5,850 | 0.0032728 | £1,787,386 |
| 9 | NADAL Strep A plus - test strip (nal von minden GmbH) | £55,980 | 939.77347194 | £5,795 | 0.0032728 | £1,770,666 |
| 10 | NADAL Strep A scan test - cassette (nal von minden GmbH) | £56,160 | 939.77347194 | £5,976 | 0.0032728 | £1,825,846 |
| 11 | OSOM Strep A test – test strip (Sekisui Diagnostics) | | | | | |
| 12 | QuikRead Go Strep A test kit (Orion Diagnostica) | £58,012 | 939.76701428 | £7,827 | -0.0031849 | Dominated |
| 13 | Alere TestPack Plus Strep A - cassette (Abbott) | £56,389 | 939.76939575 | £6,204 | -0.0008034 | Dominated |
| 14 | Bionexia Strep A plus - cassette (Biomerieux) | | | | | |
| 15 | Bionexia Strep A dipstick – test strip (Biomerieux) | | | | | |
| 16 | Biosynex Strep A - cassette (Biosynex) | | | | | |
| 17 | Sofia Strep A FIA (Quidel) | | | | | |
| 18 | ALERE i Strep A (Abbott) | | | | | |
| 19 | ALERE i Strep A 2 (Abbott) | £61,907 | 939.77326996 | £11,722 | 0.0030708 | £3,817,336 |
| 20 | Cobas Strep A Assay on Liat system (Roche Diagnostics) | £66,318 | 939.77326996 | £16,133 | 0.0030708 | £5,253,699 |
| 21 | Xpert Xpress Strep A (Cepheid) | £65,521 | 939.77368771 | £15,336 | 0.0034885 | £4,396,205 |

¹Test accuracy data for Biopanda Reagents Strep A rapid test – test strip not available, assumed the strip has same test accuracy as the cassette version of the test

*Note: Missing cost-effectiveness estimates are for the tests where either test accuracy or cost data were not available

Table 4: Children secondary care model: Base-case cost-effectiveness results - cost of Cobas Strep A Assay on Liat system (Roche Diagnostics) changed from £64.63 in the base-case to £35 (new price supplied by Roche Diagnostics)

| TestID | Test Name | Mean costs / 1000 individuals | Mean QALYs / 1000 individuals | Inc. Costs / 1000 individuals | Inc. QALYS / 1000 individuals | ICER versus usual care |
|--------|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------|
| | Usual care (Clinical scoring based on Centor ≥ 3 plus clinical assessment) | £50,185 | 939.77019917 | £0 | 0.0000000 | |
| 1 | Clearview Exact Strep A cassette (Abbott) | £52,219 | 939.76305927 | £2,034 | -0.0071399 | Dominated |
| 2 | Clearview Exact Strep A dipstick – test strip (Abbott) | £52,000 | 939.76305927 | £1,815 | -0.0071399 | Dominated |
| 3 | BD Veritor Plus system group A Strep Assay - cassette (Becton Dickinson) | | | | | |
| 4 | Strep A rapid test - cassette (Biopanda Reagents) | £51,345 | 939.77244279 | £1,160 | 0.0022436 | £517,066 |
| 5 | Strep A rapid test – test strip (Biopanda Reagents)* | £51,296 | 939.77244279 | £1,111 | 0.0022436 | £495,115 |
| 6 | NADAL Strep A - test strip (nal von minden GmbH) | £50,398 | 939.77347194 | £213 | 0.0032728 | £65,122 |
| 7 | NADAL Strep A - cassette (nal von minden GmbH) | £50,453 | 939.77347194 | £268 | 0.0032728 | £81,845 |
| 8 | NADAL Strep A plus - cassette (nal von minden GmbH) | £50,480 | 939.77347194 | £295 | 0.0032728 | £90,205 |
| 9 | NADAL Strep A plus - test strip (nal von minden GmbH) | £50,425 | 939.77347194 | £240 | 0.0032728 | £73,482 |
| 10 | NADAL Strep A scan test - cassette (nal von minden GmbH) | £50,606 | 939.77347194 | £421 | 0.0032728 | £128,662 |
| 11 | OSOM Strep A test – test strip (Sekisui Diagnostics) | | | | | |
| 12 | QuikRead Go Strep A test kit (Orion Diagnostica) | £52,457 | 939.76701428 | £2,273 | -0.0031849 | Dominated |
| 13 | Alere TestPack Plus Strep A - cassette (Abbott) | £50,834 | 939.76939575 | £649 | -0.0008034 | Dominated |
| 14 | Bionexia Strep A plus - cassette (Biomerieux) | | | | | |
| 15 | Bionexia Strep A dipstick – test strip (Biomerieux) | | | | | |
| 16 | Biosynex Strep A - cassette (Biosynex) | | | | | |
| 17 | Sofia Strep A FIA (Quidel) | | | | | |
| 18 | ALERE i Strep A (Abbott) | | | | | |
| 19 | ALERE i Strep A 2 (Abbott) | £56,353 | 939.77326996 | £6,168 | 0.0030708 | £2,008,522 |
| 20 | Cobas Strep A Assay on Liat system (Roche Diagnostics) | £59,652 | 939.77326996 | £9,468 | 0.0030708 | £3,083,120 |
| 21 | Xpert Xpress Strep A (Cepheid) | £52,190 | 939.77368771 | £2,006 | 0.0034885 | £574,900 |

¹Test accuracy data for Biopanda Reagents Strep A rapid test – test strip not available, assumed the strip has same test accuracy as the cassette version of the test

*Note: Missing cost-effectiveness estimates are for the tests where either test accuracy or cost data were not available.