#### SUPPLEMENTARY MATERIALS 4: ECONOMIC ANALYSIS

#### SM4.1 Unit cost per hour of staff time, by AfC band, UK £'s, 2020-21

| AfC Band               | NHS staff <sup>1</sup> | Bank staff <sup>3</sup> | Agency staff <sup>3</sup> |
|------------------------|------------------------|-------------------------|---------------------------|
| 2                      | £24 <sup>2</sup>       | £12                     | £14                       |
| 3                      | £26 <sup>2</sup>       | £14                     | £16                       |
| 4                      | £32                    | £15                     | £17                       |
| 5                      | £41                    | £19                     | £22                       |
| 6                      | £51                    | £23                     | £27                       |
| 7                      | £62                    | £29                     | £32                       |
| 8a Nursing             | £70                    | £32                     | £36                       |
| 8b Nursing             | £82                    | £37                     | £42                       |
| 8a Clinical psychology | £70                    |                         |                           |
| 8b Clinical psychology | £82                    |                         |                           |

#### Notes to Appendix x

- NHS staff costs for Bands 4 to 8b were based on those estimated in the Unit Costs of Health and Social Care
  published by the Personal Social Services Research Unit. The cost per hour of NHS staff incorporates
  employer on costs, overheads, sick leave, training days and annual leave.
- Staff costs for AfC Bands 1-3 were estimated using the methodology reported by the PSSRU. The cost per hour of NHS staff incorporates employer on costs, overheads, sick leave, training days and annual leave.
- The costs of bank and agency ward staff were estimated using national guidance, price caps and toolkit for
  effective use of staff banks. The cost per hour to the NHS for bank and agency staff incorporates employer
  on costs plus agency and bank fees or costs.

# SM4.2 Unit costs of conflict and containment episodes, UK £'s, 2020-21

| Unit cost City-128, 2004- | Unit cost City-128, 2020-21 prices   |
|---------------------------|--|
| •                         | £33.04   |
|                           | £54.85   |
| £78.75                    | £112.59  |
| N.R.                      | Assumed self-harm for EDITION  |
| £62.52                    | £89.39   |
| £5.59                     | £7.99  |
| £25.50                    | £36.46   |
| £24.19                    | £34.59   |
| £35.02                    | £50.07   |
| £14.66                    | £20.96   |
| £19.73                    | £28.21   |
| £23.80                    | £34.03   |
| £28.78                    | £41.15   |
| £43.67                    | £62.44   |
| £58.31                    | £83.37   |
| £53.75                    | £76.85   |
| £68.94                    | £98.57   |
| £23.37                    | £33.41   |
| N.R.                      | Assumed medication eventually accepted for EDITION   |
| £23.37                    | £33.41   |
| N.R.                      | Assumed PRN medication eventually accepted for EDITION   |
| £24.09                    | £34.44   |
| £18.85                    | £26.95   |
|                           | \$ prices  £23.11  £38.36  £78.75  N.R.  £62.52  £5.59  £25.50  £24.19  £35.02  £14.66  £19.73  £23.80  £28.78  £43.67  £58.31  £53.75  £68.94  £23.37  N.R.  £23.37  N.R. |

| Given IM medication enforced     | £129.38 | £184.98 |
|----------------------------------|---------|---------|
| Sent to PICU or ICA              | £139.84 | £199.94 |
| Seclusion                        | £200.07 | £286.05 |
| Special observation intermittent | £45.89  | £65.61  |
| Special observation continuous   | £138.52 | £198.05 |
| Show of force                    | £70.16  | £100.31 |
| Manually restrained              | £145.27 | £207.70 |
| Time out                         | £20.43  | £29.21  |

# SM4.3 Number and costs of conflict and containment episodes per shift, UK £'s, 2020-21

| Episode type               | Mean number per<br>shift | 95% Confide | ence interval | Mean cost per shift | 95% Confiden | ce interval |
|----------------------------|--------------------------|-------------|---------------|---------------------|--------------|-------------|
| Verbal aggression          |                          |             |               |                     |              |             |
| WLT                        | 0.00                     | 0.00        | 0.00          | £13                 | £11          | £15         |
| SWYT                       | 1.00                     | 1.00        | 1.00          | £32                 | £28          | £35         |
| Physical aggression agains | t objects                |             |               |                     |              |             |
| WLT                        | 0.00                     | 0.00        | 0.00          | £3                  | £2           | £4          |
| SWYT                       | 0.00                     | 0.00        | 0.00          | £11                 | £8           | £13         |
| Physical aggression agains | t others                 |             |               |                     |              |             |
| WLT                        | 0.00                     | 0.00        | 0.00          | £3                  | £1           | £4          |
| SWYT                       | 0.00                     | 0.00        | 0.00          | £15                 | £11          | £18         |
| Suicide attempts           |                          |             |               |                     |              |             |
| WLT                        | 0.00                     | 0.00        | 0.00          | £0                  | £0           | £0          |
| SWYT                       | 0.00                     | 0.00        | 0.00          | £2                  | £0           | £3          |
| Self-harm                  |                          |             |               |                     |              |             |
| WLT                        | 0.00                     | 0.00        | 0.00          | £1                  | £0           | £1          |
| SWYT                       | 0.00                     | 0.00        | 0.00          | £9                  | £6           | £11         |

| Smoking on the ward              |         |      |        |     |      |      |
|----------------------------------|---------|------|--------|-----|------|------|
| WLT                              | 0.00    | 0.00 | 0.00   | £0  | £0   | £0   |
| SWYT                             | 0.00    | 0.00 | 0.00   | £2  | £2   | £3   |
| Refusing to eat                  | 0.00    | 0.00 | 0.00   | 2.2 | 2.2  | 23   |
| WLT                              | 0.00    | 0.00 | 0.00   | £9  | £8   | £10  |
| SWYT                             | 0.00    | 0.00 | 0.00   | £8  | £7   | £10  |
| Refusing to drink                |         |      | 1 3133 |     |      |      |
| WLT                              | 0.00    | 0.00 | 0.00   | £2  | £2   | £3   |
| SWYT                             | 0.00    | 0.00 | 0.00   | £5  | £4   | £7   |
| Refusing to attend to personal h | nygiene |      |        |     | •    | •    |
| WLT                              | 0.00    | 0.00 | 0.00   | £4  | £3   | £5   |
| SWYT                             | 0.00    | 0.00 | 1.00   | £24 | £21  | £26  |
| Refusing to get up and out of b  | ed      |      |        |     |      |      |
| WLT                              | 0.00    | 0.00 | 0.00   | £2  | £1   | £2   |
| SWYT                             | 0.00    | 0.00 | 0.00   | £5  | £4   | £5   |
| Refusing to go to bed            |         |      |        |     |      |      |
| WLT                              | 0.00    | 0.00 | 0.00   | £1  | £1   | £1   |
| SWYT                             | 0.00    | 0.00 | 0.00   | £5  | £4   | £6   |
| Refusing to see workers          |         |      |        |     |      |      |
| WLT                              | 0.00    | 0.00 | 0.00   | £2  | £1   | £2   |
| SWYT                             | 0.00    | 0.00 | 0.00   | £2  | £1   | £3   |
| Alcohol use                      |         |      |        |     |      |      |
| WLT                              | 0.00    | 0.00 | 0.00   | £0  | £0   | £0   |
| SWYT                             | 0.00    | 0.00 | 0.00   | £2  | £1   | £3   |
| Other substance misuse           |         |      |        |     |      | _    |
| WLT                              | 0.00    | 0.00 | 0.00   | £0  | £0   | £0   |
| SWYT                             | 0.00    | 0.00 | 0.00   | £3  | £1   | £4   |
| Attempting to abscond            |         |      |        |     |      |      |
| WLT                              | 0.00    | N.A. | N.A.   | £0  | N.A. | N.A. |
| SWYT                             | 0.00    | 0.00 | 0.00   | £8  | £6   | £11  |

| Absconding, missing without p   | ermission         |      |      |     |      |      |
|---------------------------------|-------------------|------|------|-----|------|------|
| WLT                             | 0.00              | 0.00 | 0.00 | £0  | £0   | £0   |
| SWYT                            | 0.00              | 0.00 | 0.00 | £4  | £3   | £6   |
| Absconding, official report     |                   |      |      |     | •    |      |
| WLT                             | 0.00              | N.A. | N.A. | £0  | N.A. | N.A. |
| SWYT                            | 0.00              | 0.00 | 0.00 | £3  | £2   | £5   |
| Refused regular medication even | entually accepted |      |      |     |      |      |
| WLT                             | 0.00              | 0.00 | 0.00 | £4  | £3   | £5   |
| SWYT                            | 0.00              | 0.00 | 0.00 | £7  | £6   | £8   |
| Refused regular medication did  | l not accept      |      |      |     |      |      |
| WLT                             | 0.00              | 0.00 | 0.00 | £6  | £6   | £7   |
| SWYT                            | 0.00              | 0.00 | 0.00 | £15 | £13  | £16  |
| Refused PRN medication even     | tually accepted   |      |      |     |      |      |
| WLT                             | 0.00              | 0.00 | 0.00 | £1  | £1   | £1   |
| SWYT                            | 0.00              | 0.00 | 0.00 | £3  | £2   | £4   |
| Refused PRN medication did n    | ot accept         |      |      |     |      |      |
| WLT                             | 0.00              | 0.00 | 0.00 | £3  | £2   | £4   |
| SWYT                            | 0.00              | 0.00 | 0.00 | £2  | £1   | £2   |
| Demanding PRN medication        |                   |      |      |     |      |      |
| WLT                             | 0.00              | 0.00 | 0.00 | £12 | £10  | £13  |
| SWYT                            | 0.00              | 0.00 | 0.00 | £14 | £12  | £16  |
| Given PRN medication, psycho    | otropic           |      |      |     |      |      |
| WLT                             | 0.00              | 0.00 | 0.00 | £12 | £11  | £13  |
| SWYT                            | 2.00              | 2.00 | 2.00 | £48 | £44  | £51  |
| Given I.M. medication enforce   | d                 | T    | 1    |     |      |      |
| WLT                             | 0.00              | 0.00 | 0.00 | £3  | £1   | £4   |
| SWYT                            | 0.00              | 0.00 | 0.00 | £10 | £6   | £15  |
| Sent to PICU or ICA             |                   |      |      |     |      |      |
| WLT                             | 0.00              | 0.00 | 0.00 | £0  | £0   | £1   |
| SWYT                            | 0.00              | 0.00 | 0.00 | £4  | £1   | £8   |

| Seclusion                    |          |      |      |      |      |      |  |  |
|------------------------------|----------|------|------|------|------|------|--|--|
| WLT                          | 1.00     | 1.00 | 1.00 | £189 | £172 | £206 |  |  |
| SWYT                         | 0.00     | 0.00 | 0.00 | £60  | £49  | £70  |  |  |
| Special observation, intermi | ittent   |      |      |      |      |      |  |  |
| WLT                          | 0.00     | 0.00 | 0.00 | £21  | £18  | £24  |  |  |
| SWYT                         | 1.00     | 1.00 | 1.00 | £37  | £33  | £41  |  |  |
| Special observation, continu | uous     |      |      |      |      |      |  |  |
| WLT                          | 1.00     | 1.00 | 1.00 | £121 | £111 | £131 |  |  |
| SWYT                         | 0.00     | 0.00 | 0.00 | £37  | £30  | £44  |  |  |
| Show of force                |          |      |      |      |      |      |  |  |
| WLT                          | 0.00     | 0.00 | 0.00 | £1   | £1   | £2   |  |  |
| SWYT                         | 0.00     | 0.00 | 0.00 | £6   | £4   | £8   |  |  |
| Manually restrained          |          |      |      |      |      |      |  |  |
| WLT                          | 0.00     | 0.00 | 0.00 | £3   | £2   | £4   |  |  |
| SWYT                         | 0.00     | 0.00 | 0.00 | £19  | £14  | £24  |  |  |
| Time-out                     | Time-out |      |      |      |      |      |  |  |
| WLT                          | 0.00     | 0.00 | 0.00 | £0   | £0   | £1   |  |  |
| SWYT                         | 0.00     | 0.00 | 0.00 | £1   | £1   | £2   |  |  |

### SM4.4 EQ-5D-5L domain scores

| EQ-5D-5L domain               | Participant's fi       | rst assessment         | Participant's last follow-up |                       |  |
|-------------------------------|------------------------|------------------------|------------------------------|-----------------------|--|
|                               | Staff                  | Patient                | Staff                        | Patient               |  |
|                               | n/N, % (95%CI)         | n/N, % (95%CI)         | n/N, % (95%CI)               | n/N, % (95%CI)        |  |
| Mobility                      |                        |                        |                              |                       |  |
| No problems                   | 98/104, 94%(88%, 97%)  | 87/129, 67%(59%, 75%)  | 25/27, 93%(73%, 98%)         | 46/70, 66% (54%, 76%) |  |
| Slight problems               | 3/104, 3%(1%, 9%)      | 20/129, 16%(10%, 23%)  | 2/27, 7%(2%, 26%)            | 10/70, 14%(8%,25 %)   |  |
| Moderate problems             | 3/104, 3%(1%, 9%)      | 12/129, 9%(5%, 16%)    | 0/27, 0%                     | 8/70, 11%(6%, 21%)    |  |
| Severe problems               | 0/104, 0%              | 8/129, 6%(3%,12 %)     | 0/27, 0%                     | 5/70, 7%(3%, 16%)     |  |
| Unable to walk about          | 0/104, 0%              | 2/129, 2%(<1%, 6%)     | 0/27, 0%                     | 1/70, 1%(<1%, 10%)    |  |
| Self-care                     |                        |                        |                              |                       |  |
| No problems                   | 104/104, 100%          | 100/132, 76%(68%-82%)  | 26/27, 96% (76%, 99%)        | 59/70, 84%(74%, 91%)  |  |
| Slight problems               | 0/104, 0%              | 19/132, 14%(9%, 22%)   | 1/27, 4%(1%, 23%)            | 7/70, 10%(5%, 20%)    |  |
| Moderate problems             | 0/104, 0%              | 9/132, 7%(4%, 13%)     | 0/27, 0%                     | 3/70, 4%(1%, 13%)     |  |
| Severe problems               | 0/104, 0%              | 4/132, 3%(1%, 8%)      | 0/27, 0%                     | 1/70, 1%(<1%, 10%)    |  |
| Unable to wash or dress       | 0/104, 0%              | 0/132, 0%              | 0/27, 0%                     | 0/27, 0%              |  |
| Usual activity                |                        |                        |                              | •                     |  |
| No problems                   | 100/104, 96%(90%, 99%) | 75/129, 58%(49%, 66%)  | 26/27, 96% (78%, 99%)        | 44/71, 62%(50%, 73%)  |  |
| Slight problems               | 2/104, 2%(<1%, 7%)     | 17/129, 13%(8%, 20%)   | 1/27, 4%(1%, 23%)            | 12/70, 17%(10%, 28%)  |  |
| Moderate problems             | 1/104, 1%(<1%, 7%)     | 21/129, 16%(11%, 24%)  | 0/27, 0%                     | 8/70, 11%(6%, 21%)    |  |
| Severe problems               | 1/104, 1%(<1%, 7%)     | 8/129, 6%(3%,12 %)     | 0/27, 0%                     | 2/70, 3%(1%, 11%)     |  |
| Unable to do usual activities | 0/104, 0%              | 8/129, 6%(3%, 12%)     | 0/27, 0%                     | 5/70, 7%(3%, 16%)     |  |
| Pain                          |                        |                        |                              |                       |  |
| No pain/discomfort            | 80/104, 77%(68%, 84%)  | 60/131, 46% (37%, 54%) | 20/27, 78% (58%, 90%)        | 37/71, 52%(41%, 63%)  |  |
| Slight pain/discomfort        | 16/104, 15%(10%,24%)   | 30/131, 23%(16%, 31%)  | 5/27, 19%(8%, 38%)           | 18/70, 25%(17%, 37%)  |  |
| Moderate pain/discomfort      | 7/104, 7%(3%, 13%)     | 22/131, 17%(11%, 24%)  | 0/27, 0%                     | 10/70, 14%(8%,25 %)   |  |
| Severe pain/discomfort        | 0/104, 0%              | 10/131, 8%(4%, 14%)    | 0/27, 0%                     | 6/70, 8%(4%, 18%)     |  |

| Extreme pain/discomfort      | 1/104, 1%(<1%, 7%)    | 9/131, 7%(4%, 13%)    | 1/27, 4%(1%, 23%)    | 0/27, 0%             |
|------------------------------|-----------------------|-----------------------|----------------------|----------------------|
| Anxiety/depression           |                       |                       |                      |                      |
| Not anxious/depressed        | 74/103, 72%(62%, 80%) | 37/132, 28%(21%, 36%) | 21/27, 78%(58%, 90%) | 25/70, 36%(25%, 48%) |
| Slightly anxious/depressed   | 20/104, 19%(13%, 28%) | 27/132, 20%(14%, 28%) | 5/27, 19%(8%, 38%)   | 16/70, 23%(14%, 34%) |
| Moderately anxious/depressed | 8/104, 8%(4%,15 %)    | 37/132, 28%(21%, 36%) | 1/27, 4%(1%, 23%)    | 14/70, 20%(12%, 31%) |
| Severely anxious/depressed   | 1/104, 1%(<1%, 7%)    | 16/132, 12%(8%, 19%)  | 0/27, 0%             | 8/70, 11%(6%, 21%)   |
| Extremely anxious/depressed  | 0/104, 0%             | 15/132, 11%(7%, 18%)  | 0/27, 0%             | 7/70, 10%(5%, 20%)   |