**File 3: Economic model 1: Project data (deterministic sensitivity analysis; Control = Standard care from Hewett et al, 2016)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **Intervention (HES data)** |  | **Standard care (Hewett N et al 2016)** |  |  | **Adjusted difference at follow-up** | **P value** | **ICER (£ per bed day avoided)** |
|   | **(annual estimates per patient)** | **mean** | **SD** | **mean** | **SD** |  |  |   |  |
| **Primary**  | **Bed days** | 18.88 | 52.04 | 20.80 | 2.80 | **Bed days avoided** | 1.92 | <0.01 |   |
|  | **Total healthcare costs (£, readmissions)** | 6582.94 | 8665.53 | 2185.46 | 3168.91 | **Total healthcare costs invested, £** | 4397.48 | <0.01 | 2290.36 |
| **Sensitivity: Bed days avoided comparator=upper limit 95%CI** | **Bed days**  | 18.88 | 52.04 | 21.18 | 2.85 | **Bed days avoided** | 2.30 | <0.01 | 1908.63 |
| **Sensitivity: Total costs comparator=lower limit 95%CI** | **Total healthcare costs (£, readmissions)** | 6582.94 | 8665.53 | 1750.61 | 2538.38 | **Total healthcare costs invested, £** | 4832.33 | <0.01 | 2516.84 |
| **Sensitivity: 3 year follow up** | **Bed days** | 54.75 | 150.90 | 60.31 | 8.12 | **Bed days avoided** | 5.57 | <0.01 | 2290.36 |
|  | **Total healthcare costs (£, readmissions)** | 19088.51 |   | 6337.15 |   | **Total healthcare costs invested, £** | 12751.36 | <0.01 |   |

**File 3: Table 2: Economic model 1: deterministic sensitivity analysis (Housing-led vs Standard care)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **Intervention (HES data)** |  | **Standard care (Hewett N et al 2016)** |  |  | **Adjusted difference at follow-up** | **P value** | **ICER (£ per bed day avoided)** |
|   | **(annual estimates per patient)** | **mean** | **SD** | **mean** | **SD** |  |  |   |  |
| **Primary**  | **Bed days** | 19.25 | 35.98 | 20.80 | 2.80 | **Bed days avoided** | 1.55 | <0.01 |   |
|  | **Total healthcare costs (£, readmissions)** | 4766.37 | 9153.47 | 2185.46 | 3168.91 | **Total healthcare costs invested, £** | 2580.91 | <0.01 | 1665.11 |
| **Sensitivity: Bed days avoided comparator=upper limit 95%CI** | **Bed days**  | 19.25 | 35.98 | 21.18 | 2.85 | **Bed days avoided** | 1.93 | <0.01 | 1334.50 |
| **Sensitivity: Total costs comparator=lower limit 95%CI** | **Total healthcare costs (£, readmissions)** | 4766.37 | 9153.47 | 1750.61 | 2538.38 | **Total healthcare costs invested, £** | 3015.76 | <0.01 | 1945.65 |
| **Sensitivity: 3 year follow up** | **Bed days** | 55.82 | 104.33 | 60.31 | 8.12 | **Bed days avoided** | 4.49 | <0.01 | 1665.11 |
|  | **Total healthcare costs (£, readmissions)** | 13821.02 |   | 6337.15 |   | **Total healthcare costs invested, £** | 7483.86 | <0.01 |   |

**File 3: Table 3: Economic model 1: deterministic sensitivity analysis (Schemes doing Patient In reach & Discharge Coordination (with no ‘step down’) vs Standard care)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **Intervention (HES data)** |  | **Standard care (Hewett N et al 2016)** |  |  | **Adjusted difference at follow-up** | **P value** | **ICER (£ per bed day avoided)** |
|   | **(annual estimates per patient)** | **mean** | **SD** | **mean** | **SD** |  |  |   |  |
| **Primary**  | **Bed days** | 19.23 | 53.73 | 20.80 | 2.80 | **Bed days avoided** | 1.57 | <0.01 |   |
|  | **Total healthcare costs (£, readmissions)** | 6741.94 | 8645.50 | 2185.46 | 3168.91 | **Total healthcare costs invested, £** | 4556.48 | <0.01 | 2902.22 |
| **Sensitivity: Bed days avoided comparator=upper limit 95%CI** | **Bed days**  | 19.23 | 53.73 | 21.18 | 2.85 | **Bed days avoided** | 1.95 | <0.01 | 2331.88 |
| **Sensitivity: Total costs comparator=lower limit 95%CI** | **Total healthcare costs (£, readmissions)** | 6741.94 | 8645.50 | 1750.61 | 2538.38 | **Total healthcare costs invested, £** | 4991.33 | <0.01 | 3179.19 |
| **Sensitivity: 3 year follow up** | **Bed days** | 55.76 | 155.80 | 60.31 | 8.12 | **Bed days avoided** | 4.55 | <0.01 | 2902.22 |
|  | **Total healthcare costs (£, readmissions)** | 19549.56 |   | 6337.15 |   | **Total healthcare costs invested, £** | 13212.41 | <0.01 |   |

**File 3: Table 4: Economic model 1: deterministic sensitivity analysis (Schemes doing Patient In reach & Discharge Coordination (with step down either community based or residential) vs Standard care)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **Intervention (HES data)** |  | **Standard care (Hewett N et al 2016)** |  |  | **Adjusted difference at follow-up** | **P value** | **ICER (£ per bed day avoided)** |
|   | **(annual estimates per patient)** | **mean** | **SD** | **mean** | **SD** |  |  |   |  |
| **Primary**  | **Bed days** | 18.46 | 34.93 | 20.80 | 2.80 | **Bed days avoided** | 2.34 | <0.01 |   |
|  | **Total healthcare costs (£, readmissions)** | 4796.76 | 9095.41 | 2185.46 | 3168.91 | **Total healthcare costs invested, £** | 2611.30 | <0.01 | 1115.94 |
| **Sensitivity: Bed days avoided comparator=upper limit 95%CI** | **Bed days**  | 18.46 | 34.93 | 21.18 | 2.85 | **Bed days avoided** | 2.72 | <0.01 | 958.63 |
| **Sensitivity: Total costs comparator=lower limit 95%CI** | **Total healthcare costs (£, readmissions)** | 4796.76 | 9095.41 | 1750.61 | 2538.38 | **Total healthcare costs invested, £** | 3046.15 | <0.01 | 1301.78 |
| **Sensitivity: 3 year follow up** | **Bed days** | 53.53 | 101.29 | 60.31 | 8.12 | **Bed days avoided** | 6.79 | <0.01 | 1115.94 |
|  | **Total healthcare costs (£, readmissions)** | 13909.14 |   | 6337.15 |   | **Total healthcare costs invested, £** | 7571.98 | <0.01 |   |

**File 3: Table 5: Economic model 1: deterministic sensitivity analysis (Conf.1 vs Standard care)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **Intervention (HES data)** |  | **Standard care (Hewett N et al 2016)** |  |  | **Difference**  | **P value** | **ICER (£ per bed day avoided)** |
|   | **(annual estimates per patient)** | **mean** | **SD** | **mean** | **SD** |  |  |   |  |
| **Primary**  | **Bed days** | 18.24 | 34.48 | 20.80 | 2.80 | **Bed days avoided** | 2.56 | <0.01 |   |
|  | **Total healthcare costs (£, readmissions)** | 7189.60 | 10593.52 | 2185.46 | 3168.91 | **Total healthcare costs invested, £** | 5004.14 | <0.01 | 2735.99 |
| **Sensitivity: Bed days avoided comparator=upper limit 95%CI** | **Bed days**  | 18.24 | 34.48 | 21.18 | 2.85 | **Bed days avoided** | 2.94 | <0.01 | 2379.13 |
| **Sensitivity: Total costs comparator=lower limit 95%CI** | **Total healthcare costs (£, readmissions)** | 7189.60 | 10593.52 | 1750.61 | 2538.38 | **Total healthcare costs invested, £** | 7438.99 | <0.01 | 2905.86 |
| **Sensitivity: 3 year follow up** | **Bed days** | 52.89 | 99.98 | 60.31 | 8.12 | **Bed days avoided** | 7.42 | <0.01 | 2735.99 |
|  | **Total healthcare costs (£, readmissions)** | 26647.03 |   | 6337.15 |   | **Total healthcare costs invested, £** | 20309.88 | <0.01 |   |

**File 3: Table 6: Economic model 1: deterministic sensitivity analysis (Conf.2 vs Standard care)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **Intervention (HES data)** |  | **Standard care (Hewett N et al 2016)** |  |  | **Adjusted difference at follow-up** | **P value** | **ICER (£ per bed day avoided)** |
|   | **(annual estimates per patient)** | **mean** | **SD** | **mean** | **SD** |  |  |   |  |
| **Primary**  | **Bed days** | 15.90 | 32.34 | 20.80 | 2.80 | **Bed days avoided** | 4.90 | <0.01 |   |
|  | **Total healthcare costs (£, readmissions)** | 4652.98 | 4777.82 | 2185.46 | 3168.91 | **Total healthcare costs invested, £** | 2467.52 | <0.01 | 503.58 |
| **Sensitivity: Bed days avoided comparator=upper limit 95%CI** | **Bed days**  | 15.90 | 32.34 | 21.18 | 2.85 | **Bed days avoided** | 5.28 | <0.01 | 466.98 |
| **Sensitivity: Total costs comparator=lower limit 95%CI** | **Total healthcare costs (£, readmissions)** | 4652.98 | 4777.82 | 1750.61 | 2538.38 | **Total healthcare costs invested, £** | 2902.37 | <0.01 | 592.32 |
| **Sensitivity: 3 year follow up** | **Bed days** | 46.11 | 93.78 | 60.31 | 8.12 | **Bed days avoided** | 14.21 | <0.01 | 503.58 |
|  | **Total healthcare costs (£, readmissions)** | 13492.22 |   | 6337.15 |   | **Total healthcare costs invested, £** | 7155.07 | <0.01 |   |

**File 3: Table 7: Economic model 1: deterministic sensitivity analysis (Conf.3 vs Standard care)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **Intervention (HES data)** |  | **Standard care (Hewett N et al 2016)** |  |  | **Adjusted difference at follow-up** | **P value** | **ICER (£ per bed day avoided)** |
|   | **(annual estimates per patient)** | **mean** | **SD** | **mean** | **SD** |  |  |   |  |
| **Primary**  | **Bed days** | 0.90 | 1.70 | 20.80 | 2.80 | **Bed days avoided** | 19.90 | <0.01 |   |
|  | **Total healthcare costs (£, readmissions)** | 3538.68 | 4666.26 | 2185.46 | 3168.91 | **Total healthcare costs invested, £** | 1353.22 | <0.01 | 68.00 |
| **Sensitivity: Bed days avoided comparator=upper limit 95%CI** | **Bed days**  | 0.90 | 1.70 | 21.18 | 2.85 | **Bed days avoided** | 20.28 | <0.01 | 66.71 |
| **Sensitivity: Total costs comparator=lower limit 95%CI** | **Total healthcare costs (£, readmissions)** | 3538.68 | 4666.26 | 1750.61 | 2538.38 | **Total healthcare costs invested, £** | 1788.07 | <0.01 | 89.85 |
| **Sensitivity: 3 year follow up** | **Bed days** | 2.61 | 4.93 | 60.31 | 8.12 | **Bed days avoided** | 57.70 | <0.01 | 68.00 |
|  | **Total healthcare costs (£, readmissions)** | 10261.09 |   | 6337.15 |   | **Total healthcare costs invested, £** | 3923.94 | <0.01 |   |