

SUPPLEMENTARY MATERIALS

Table 1 Case Report Forms and Data Collected

| Case Report Form | Data Collected |
|-------------------------|--|
| 2 & 3 | <ul style="list-style-type: none">• Admission/discharge• Additional tests• Insulin Regimen• Contacts with diabetes team |
| 4, 5 & 6 | <ul style="list-style-type: none">• Insulin regime• Medical equipment• Contact with diabetes team• Hospital contacts• Contacts with other HCPs |
| 7 | <ul style="list-style-type: none">• Additional tests• Insulin regime• Contact with diabetes team• Hospital contacts• Contacts with other HCPs |
| 3.1, 4.1, 5.1, 6.1, 7.1 | <ul style="list-style-type: none">• Time off work/school• Travel expenses |

Table 2 Unit costs for contact with healthcare professionals

| Contact with Healthcare Professional | Unit Cost (£) | Source |
|--|---------------|-----------------------------|
| Hospital based care | | |
| Overnight stay in hospital (up to 5days) | 894.00 | NHS Reference Costs 2019/20 |
| Overnight stay in hospital (exceeding 5days) | 417.00 | |
| Consultant ward visit | 109.00 | PSSRU 2019 |
| Junior Doctor ward visit | 29.00 | |
| Nurse ward visit | 47.00 | |
| Dietitian ward visit | 46.00 | |
| Hospital Pharmacist | 6.92 | |
| Home based care | | |
| Initial home visit | 220.00 | PSSRU 2019 |
| Community Nurse home visit | 55.00 | |
| Community Nurse telephone calls & emails | 12.25 | |
| Practice Nurse clinic visit | 6.45 | |
| Practice Nurse telephone calls & emails | 4.59 | |
| Dietitian home visit | 16.00 | PSSRU 2010,2019 |
| Dietitian telephone calls & emails | 5.25 | PSSRU 2019 |
| GP home visit | 85.00 | |
| GP Surgery visit | 39.23 | |
| Telephone calls | 17.00 | |
| Consultant-led Outpatient attendance | 205.00 | |
| Non-Consultant-led outpatient attendance | 155.00 | |

Table 3 Unit Costs of Contact with Health Care Professionals

| Resource item | Details | Cost source | Unit Cost (£) |
|--|--|-------------|---------------|
| Hospital Based Care | | | |
| Overnight stay in Hospital | NHS Reference cost 2019/20 PK68C CC Score 0, cost of combined day case/ordinary elective spell. | a | 894.00 |
| | Per day long stay payment (for days exceeding trim point of 5 days). | a | 417.00 |
| Consultant ward visit | Medical Consultant, hourly rate. | b | 109.00 |
| Junior Doctor ward visit | Foundation House Officer Year 1, hourly rate. | b | 29.00 |
| Nurse ward visit | Nurse team leader, hourly rate. | b | 47.00 |
| Dietitian ward visit | Hospital Dietitian, Average visit 1hour, hourly rate (Band 6). | b | 46.00 |
| Hospital Pharmacist | £45 per hour. Assumed length of consultation same as GP = 9.22minutes. = £6.92. | b | 6.92 |
| Home Based Care | | | |
| Initial home visit | Community Nurse, hourly rate £55.2 hourly visits. 2 x daily to supervise injections. | b | 220.00 |
| Community Nurse home visit | PSSRU 2019: Band 7 =£55.00 per hour. | b | 55.00 |
| Community Nurse telephone calls & emails | Patient-related work, hourly rate £112 (Band 7). Average length of Nurse-led telephone triage = 6.56minutes. | b | 12.25 |
| Practice Nurse clinic visit | Hourly rate £42 per hour. Assumed surgery length same as GPs = 9.22minutes. | b | 6.45 |
| Practice Nurse telephone calls & emails | Hourly rate £42 per hour. Average length of Nurse-led telephone triage = 6.56minutes. | b | 4.59 |
| Dietitian home visit | No rates for Community Dietician. Community Occupational Therapist hourly rate = £48 per hour. No information for average length of visit. If assume 20minutes from PSSRU 2010 = £16.00. | b, c | 16.00 |
| Dietitian telephone calls & emails | Hourly rate £48.00. Assumed duration of 6.56minutes (same as Nurse telephone triage). | b | 5.25 |

| | | | |
|---|---|---|--------|
| GP home visit | £255/hour of patient contact. Assuming duration of 20minutes. | b | 85.00 |
| GP Surgery visit | Cost per surgery consultation lasting 9.22minutes | b | 39.23 |
| Telephone calls | Average length of GP-led triage is 4minutes so x hourly rate of £255 | b | 17.00 |
| Consultant-led Outpatient attendance | Paediatric Consultant-led Outpatient attendance. | b | 205.00 |
| Non-Consultant-led outpatient attendance | Paediatric non-consultant-led outpatient attendance. | b | 155.00 |
| Other Contact with Health Care Professionals | | | |
| Consultant Telephone Call | Hourly rate £109. Assumed duration of 6.56minutes (same as Nurse-led telephone triage). | b | 11.92 |
| Registrar ward visit | Hourly rate £47. Assumed 20minute consultation. | b | 15.67 |
| Clinical Psychologist | Hourly rate. | b | 54.00 |
| CAMHS Nurse | Hourly rate (Band 7 Nurse). | b | 57.00 |
| Speech and Language Therapist | Hourly rate (Band 6). | b | 46.00 |
| Physiotherapist | Scientific and professional staff. Hourly rate (Band 6). | b | 45.00 |
| Podiatrist | Hospital-based scientific and professional staff. Hourly rate (Band 6). | b | 46.00 |
| Family Advocate | Not rates for general family advocate. Advocacy for parents requiring learning disability support. Hourly rate. | b | 31.00 |
| Dentist | Hourly rate £104. Assumed duration same as GP = 9.22minutes. | b | 15.98 |
| Osteopath | No rates for osteopath. Scientific and Professional Staff. Hourly rate (Band 5). | b | 34.00 |
| Phlebotomist | No rates for phlebotomist. Nurse (Band 4). Hourly rate £28. Assumed duration same as GP = £9.22. | b | 4.30 |

Table 4 Unit costs for Insulin

| Insulin | Details | Cost Source | Unit Cost (£) |
|-------------------------------|---|-------------|---------------|
| Mixtard 30 | Discontinued on 31 Dec 2010. Previously available as 5 x prefilled 3ml <i>InnoLet</i> ® £19.87 (range 2-78 units). | d, e | 19.87 |
| Novomix 30 | 5 x FlexPen 100units/ml suspension for injection 3ml pre-filled pen = £29.89. | e | 29.89 |
| Humulin M3 | 5 x Humulin M3 KwikPen 100units/ml suspension for injection 3ml pre-filled pen (Eli Lilly and Company Ltd). | e | 21.70 |
| Insulin Aspart (Novorapid) | 5 x NovoRapid FlexTouch 100units/ml solution for injection 3ml pre-filled pen (Novo Nordisk Ltd) = £32.13. | e | 32.13 |
| Insulin Lispro (Humalog) | 5 x Humalog KwikPen 100units/ml solution for injection 3ml pre-filled pen (Eli Lilly and Company Ltd) = £29.46. | e | 29.46 |
| Actrapid | Actrapid 100units/ml for injection 10ml vials (Novo Nordisk Ltd), 100 units per 1ml, net price 10mL vial = £7.48. Novopen devices no longer available so previous price of £26.86 used. | e | 34.34 |
| Insulin Detemir (Levemir) | 5 x Levemir InnotLet 100units/ml solution for injection 3ml pre-filled pen (Novo Nordisk Ltd) = £42 | e | 44.85 |
| Insulin Glargine (Lantus) | 5 x Lantus 100units/ml solution for injection 3ml pre-filled SoloStar pen (Sanofi) = £37.77 | e | 37.77 |
| Isophane Insulin (Insulatard) | 5 x Insulatard InnoLet 100units/ml suspension for injection 3ml pre-filled pen (Novo Nordisk Ltd) = £20.40 NHS | e | 20.40 |
| Humalog Mix 25 | Humalog Mix25 KwikPen 100units/ml suspension for injection 3ml pre-filled pen (Eli Lilly and Company Ltd) 5 x Insulin lispro 75 unit per 1 ml and Insulin lispro 25 unit per 1 ml = £30.98 | e | 30.98 |
| Humalog Mix 50 | Humalog Mix50 KwikPen 100units/ml suspension for injection 3ml pre-filled pen (Eli Lilly and Company Ltd) 5 x Insulin lispro 50 unit per 1 ml = £30.98 | e | 30.98 |
| Humulin I | Humulin I KwikPen 100units/ml suspension for injection 3ml pre-filled pen (Eli Lilly and Company Ltd) 5 x Insulin human (as Insulin isophane humane) 100 unit per ml = £21.70 | e | 21.70 |

Table 5 Unit costs for tests and investigations

| Test and Investigations | Details | Cost Source | Unit Cost (£) |
|-------------------------|---|-------------|---------------|
| Blood Gas | | f | 4.86 |
| Thyroid Function | | f | 3.02 |
| Anti TTG | Anti-tissue Transglutaminase Antibodies test | f | 12.35 |
| IgA P | Immunoglobulin A test | f | 4.62 |
| Islet cell Antibodies | Islet Antigen 2 Antibody | f | 23.16 |
| GAD Antibodies | Glutamic Acid Decarboxylase Autoantibodies test (Send away) | f, g | 22.06 |
| U&E | Urea and Electrolytes | f | 3.92 |
| Chest X ray | | i | 11.00 |
| LFT | Liver Function Test | f | 4.76 |
| FBC | Full Blood Count | f | 4.23 |
| Urine culture | | f | 13.60 |
| Anti tpo | Thyroid peroxidase IgG Ab | f | 3.21 |
| APTT | Activated Partial Thromboplastin Time test | f | 3.52 |
| C Peptide | | f | 22.50 |
| Coeliac Screen | IgA Tissue Transglutaminase antibody | f | 12.35 |
| CRP | C-Reactive Protein | f | 3.21 |
| ECG | Electrocardiogram | g | 9.56 |
| Ferritin | | f | 4.71 |
| HBA1C | | f | 2.42 |
| ICCP | Anti-MCV Antibodies | f | 6.96 |
| Lipid Profile | | f | 3.92 |
| MRSA | Methicillin-resistant Staphylococcus aureus test | f | 18.52 |
| Pancreatic Cabs | Anti-GAD | f | N/A |
| Plasma Osmolality | | f | 6.16 |
| Thyroid Antibodies | | f | 3.21 |
| Amylase | | f | 1.35 |

| | | | |
|--------------------------------|---|------|-------|
| Anti TPO | Anti-thyroid peroxidase test | f | 3.21 |
| Bilirubin | Total | f | 1.35 |
| Glucose | | f | 1.35 |
| Magnesium | | f | 1.35 |
| Others | Blood culture | h | 7.33 |
| | Insulin | h | 2.25 |
| | Sickle cell | h | 8.28 |
| | Urine ketones | h | 3.21 |
| | Viral titres | h | 11.59 |
| | 3 Hydroxybutyrate | h | 3.76 |
| | X TRT | h | 4.50 |
| | Serum Chloride | h | 1.44 |
| | Lactate | h | 1.44 |
| | Bone profile | h | 5.11 |
| | Blood film | h | 6.48 |
| | Urine dip | h | 3.50 |
| Rheumatoid Factor | h | 8.43 | |
| Blood glucose testing strips | Based on average cost of strips (£696.96 / 64 = £10.89) | e | 10.89 |
| Blood glucose testing cassette | Betacheck C50 cassette: 100 device = £29.98 Mobile cassette: 50 device = £9.99 (Assumed 50 strips unless stated) | e | 9.99 |
| Urine ketone testing strips | Based on average cost (2.25+3.06/2 = £2.66). | e | 2.66 |
| Blood ketone testing strips | Based on average cost of ketone testing strips. | e | 16.95 |
| Lancets (pack of 100) | Based on average cost of pack of 100. | j | 3.93 |
| Lancets (pack of 204) | FastClix (Roche Diabetes Care Ltd.) | j | 5.90 |
| Hypostop/glucogel | GlucoGel 40% gel original (BBI Healthcare Ltd): Glucose 400mg per 1g - 75gram = £7.16 | e | 7.16 |
| Glucagon | Glucagon hydrochloride 1mg: 1 vial = £11.52 | e | 11.52 |
| Insulin needles | Pack of 100 Safety needles 0.3ml or 0.5ml syringe and needle = £13.34 | j | 13.34 |
| Insulin pens | Based on average cost of insulin pens. | e | 19.35 |

| | | | |
|------------|-----------------------|---|------|
| Sharps bin | Sharpsafe 1L = £0.85. | j | 0.85 |
|------------|-----------------------|---|------|

References:

- a) NHS Improvement and NHS England. Annex A: The national tariff workbook. 2020 [Accessed 10/03/2020]. Available from: <https://improvement.nhs.uk/resources/national-tariff/>
- b) Curtis, Lesley A. and Burns, Amanda (2019) Unit Costs of Health and Social Care 2019. Unit Costs of Health and Social Care. PSSRU, Kent, UK, 176 pp. ISBN 978-1-911353-10-2. <https://kar.kent.ac.uk/79286/1/UCFinalFeb20.pdf>
- c) Curtis L. Unit Costs of Health and Social Care 2010. University of Kent, Canterbury: Personal Social Services Research Unit; 2010. https://www.pssru.ac.uk/pub/uc/uc2010/uc2010_s10.pdf
- d) Barton, J & Saunders J (2010) Discontinuation of Mixtard® 30 Insulin Products, Aneurin Bevan Health Board (August 2010) [Accessed: 10/03/2020]. Available from: <http://www.wales.nhs.uk/sites3/docopen.cfm?orgid=814&id=161224>
- e) NICE. BNF for Children: British National Formulary. NICE; 2020 [accessed 10/03/2020]. Available from: <https://bnfc.nice.org.uk/>
- f) Cardiff and Vale University Health Board, Biochemistry and Immunology Dept, University Hospital of Wales. (Personal communication).
- g) (Inflated)* NICE. Appendix M: Routine preoperative tests for elective surgery. Centre NCG; 2015 [accessed 10/03/2020]. Available from: <https://www.nice.org.uk/guidance/ng45/history/>
- h) (Inflated)* from previous cost supplied by 2012 Cwm Taf Health Board
- i) Personal communication with Swansea Bay Health Board
- j) NHS. NHS Electronic Drug Tariff. NHS Business Services Authority; 2020. <http://www.drugtariff.nhsbsa.nhs.uk/#/00774110-DC/DC00773743#d2e9682/Part%20IXA-Appliances>

*Costs inflated using the CCEMG-EPPI-Centre Cost Converter. Available at: <http://epi.ioe.ac.uk/costconversion/default.aspx>

Table 6 Unit costs for patient/carer borne costs

| Resource item | Details | Cost source | Unit cost (£) |
|---------------------|--|-------------|---------------|
| Time off work | Median weekly earnings £585 April 2019 Daily wage (£585 divided by 5 = £117) | a | 117.00 |
| Time off school | Total annual spending per pupil of £5,872; Divided by the number of school days in a year (195) = a cost of £30.11 per day missed | b | 30.11 |
| Travelling by car | AA Mileage calculator used to calculate miles travelled in 1 hour = 48.9miles. Average price per mileage = £1.238. Average miles per gallon = 50.5mpg. = £5.44 per hour | c, d, e | 5.44 |
| Travelling by bus | Captured by OOP£ | | |
| Travelling by train | Captured by OOP£ | | |
| Travelling by taxi | Captured by OOP£ | | |

References:

- a) Office for National Statistics. Employee earnings in the UK. Office for National Statistics –; 2019 [accessed 10/03/2020]. Available from: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/2019>
- b) Belfield, C. F., C. Sibieta, L. 2018. Annual Report on Education Spending in England. In: Payne, J. ed. London: The Institute for Fiscal Studies. (2018-2019 prices).
- c) Automobile Association Developments Ltd. 2018. Mileage calculator. AA. [Accessed: 29/03/2020]. Available at: <https://www.theaa.com/driving/mileage-calculator.jsp>
- d) data.gov.uk. 2020. *Petrol and diesel prices*. Department for Business, Energy and Industrial Strategy. [Accessed: 29/03/2020]. Available at: <https://data.gov.uk/dataset/c174a981-b0f2-4b39-adc0-1d0a27a7d8c9/petrol-and-diesel-prices>
- e) RAC Foundation. 2020. *FAQs about road transport and the environment*. London. [Accessed: 29/03/2020]. Available at: <https://www.racfoundation.org/motoring-faqs/environment>

Table 7 Other Hospital Contacts

| Resource item | Notes | Cost data source | Unit cost used (£) |
|--------------------|--|------------------|--------------------|
| A&E | Cost per A&E attendance. Inflated from £160. | a | 166.20 |
| ITU | Paediatric ICU, basic critical care average cost | b | 1,389.00 |
| HTU | Paediatric HDU, basic critical care average cost | b | 780.00 |
| Other ward | PK68C CC Score 0, cost of combined day case/ordinary elective spell. | c | 894.00 |
| Ambulance call out | See and treat and convey | b | 258.00 |

References:

- a) NHS Improvement. 2017/18 reference costs and guidance. 2018 [accessed 03/05/2020]. Available from: <https://improvement.nhs.uk/resources/reference-costs/>
- b) Curtis LAB, Amanda. Unit Costs of Health and Social Care 2019. Unit Costs of Health and Social Care. Kent, UK: PSSRU; 2019. p. 176.
- c) NHS Improvement and NHS England. Annex A: The national tariff workbook. 2020 [accessed 10/03/2020]. Available from: <https://improvement.nhs.uk/resources/national-tariff/>

Table 8 Total Costs

| | Arm | | Difference between Home and Hospital, mean (95% CI) (£) |
|---|---|---|---|
| | Home management (n=98), mean (95% CI) (£) | Hospital management (n=95), mean (95% CI) (£) | |
| Direct Healthcare Costs Days 0-3 | 1163 (1079 to 1248) | 3386 (3261 to 3511) | -2223 (-2373 to -2072) |
| Direct Healthcare Costs 24months | 5287 (4864 to 5709) | 5282 (4883 to 5680) | 5 (-584 to 594) |
| TOTAL Direct Healthcare Costs | 6450 (6004 to 6897) | 8668 (8255 to 9080) | -2217 (-2825 to -1609) |
| Patient/carer Costs Days 0-3 | 331 (280 to 383) | 352 (292 to 412) | -21 (-101 to 59) |
| Patient/carer Costs 24months | 1420 (1134 to 1705) | 1737 (1207 to 2267) | -317 (-916 to 281) |
| TOTAL Patient/carer Costs | 1751 (1448 to 2054) | 2089 (1547 to 2631) | -338 (-963 to 286) |
| TOTAL Healthcare + Patient/carer Costs | 8201 (7585 to 8817) | 10757 (10050 to 11463) | -2556 (-3494 to -1618) |

Table 9 DIRECT COSTS (NHS): Initiation Period (Days 0-3)

| Variable | Arm | Observed Coef.(£) | Bootstrap Std. Error.(£) | z (£) | P> z | Normal-based [95% CI] (£) | |
|-----------------------------------|------------|-------------------|--------------------------|-------|-------|---------------------------|----------|
| Contact with Diabetes Team | Home | 974 | 43 | 23 | 0.000 | 889 | 1059 |
| | Hospital | 720 | 32 | 23 | 0.000 | 658 | 782 |
| | Difference | 254 | 55 | 5 | 0.000 | 147 | 361 |
| Other Health Professionals | Home | 0 | 0 | 1 | 0.322 | -0 | 0 |
| | Hospital | 1 | 1 | 1 | 0.202 | -1 | 4 |
| | Difference | -1 | 1 | -1 | 0.219 | -4 | 1 |
| Tests and Investigations | Home | 55 | 3 | 18 | 0.000 | 49 | 61 |
| | Hospital | 62 | 3 | 21 | 0.000 | 56 | 67 |
| | Difference | -7 | 4 | -2 | 0.103 | -15 | 1 |
| Hospital Stay | Home | 0 | - | - | - | - | - |
| | Hospital | 2583 | 61 | 43 | 0.000 | 2464 | 2702 |
| | Difference | -2583 | 61 | -42 | 0.000 | -2702 | -2463 |
| Nurse Travel | Home | 133 | 13 | 10 | 0.000 | 107 | 159 |
| | Hospital | 18 | 5 | 3 | 0.001 | 8 | 28 |
| | Difference | 115 | 14 | 8 | 0.000 | 86 | 143 |
| Dietician Travel | Home | 3 | 1 | 3 | 0.001 | 1 | 5 |
| | Hospital | 1 | 1 | 1 | 0.314 | -1 | 2 |
| | Difference | 2 | 1 | 2 | 0.038 | 0 | 4.655081 |
| Total Cost Days 0-3 | Home | 1163 | 43 | 27 | 0.000 | 1079 | 1248 |
| | Hospital | 3386 | 64 | 53 | 0.000 | 3261 | 3511 |
| | Difference | -2223 | 77 | -29 | 0.000 | -2373 | -2072 |

Table 10: DIRECT COSTS (NHS): Follow-up period (24months)

| Variable | Arm | Observed Coef.(£) | Bootstrap Std. Error.(£) | z (£) | P> z | Normal-based [95% CI] (£) | |
|---|------------|-------------------|--------------------------|-------|--------|---------------------------|------|
| Equipment | Home | 1745 | 91 | 19 | 0.000 | 1567 | 1924 |
| | Hospital | 1714 | 87 | 20 | 0.000 | 1544 | 1883 |
| | Difference | 31 | 127 | 0 | 0.805 | -218 | 281 |
| Insulin | Home | 457 | 28 | 16 | 0.000 | 402 | 512 |
| | Hospital | 446 | 25 | 18 | 0.000 | 397 | 495 |
| | Difference | 11 | 38 | 0 | 0.770 | -63 | 85 |
| Tests and Investigations | Home | 8 | 1 | 6 | 0.000 | 5 | 11 |
| | Hospital | 8 | 1 | 6 | 0.000 | 6 | 11 |
| | Difference | -1 | 2 | -0 | 0.968 | -4 | 4 |
| Contact with Diabetes Team (Other) | Home | 584 | 42 | 14 | 0.000 | 502 | 667 |
| | Hospital | 625 | 43 | 15 | 0.000 | 541 | 709 |
| | Difference | -41 | 61 | -1 | 0.503 | -160 | 79 |
| Outpatient contacts | Home | 1400 | 28 | 49 | 0.000 | 1344 | 1455 |
| | Hospital | 1392 | 26 | 54 | 0.000 | 1341 | 1443 |
| | Difference | 8 | 38 | 0 | 0.837 | -67 | 83 |
| Other health professional visits | Home | 195 | 23 | 8 | 0.000 | 149 | 241 |
| | Hospital | 236 | 30 | 8 | 0.000 | 177 | 295 |
| | Difference | -41 | 38 | -1 | -0.276 | -115 | 33 |
| Hospital contacts | Home | 897 | 167 | 5 | 0.000 | 569 | 1225 |
| | Hospital | 860 | 157 | 5 | 0.000 | 553 | 1167 |
| | Difference | 37 | 230 | 0 | 0.872 | -413 | 487 |
| Contact with diabetes team | Home | 1984 | 55 | 36 | 0.000 | 1876 | 2092 |
| | Hospital | 2017 | 52 | 39 | 0.000 | 1915 | 2119 |
| | Difference | -33 | 76 | -0 | 0.666 | -182 | 116 |
| Total Cost of Follow-up | Home | 5288 | 216 | 25 | 0.000 | 4864 | 5709 |
| | Hospital | 5282 | 203 | 26 | 0.000 | 4883 | 5680 |
| | Difference | 5 | 300 | 0 | 0.986 | -584 | 594 |

Table 11: INDIRECT COSTS (patient/carer): Initiation period (days 0-3)

| Variable | Arm | Observed Coef.(£) | Bootstrap Std. Error.(£) | z (£) | P> z | Normal-based [95% CI] (£) | |
|------------------------|------------|-------------------|--------------------------|-------|-------|---------------------------|-----|
| Days off work | Home | 250 | 24 | 10 | 0.000 | 203 | 297 |
| | Hospital | 256 | 28 | 9 | 0.000 | 201 | 310 |
| | Difference | -5 | 37 | -0 | 0.885 | -77 | 66 |
| Travel | Home | 11 | 1 | 14 | 0.000 | 9 | 12 |
| | Hospital | 18 | 1 | 13 | 0.000 | 15 | 21 |
| | Difference | -8 | 2 | -5 | 0.000 | -11 | -4 |
| Out of pocket expenses | Home | 8 | 1 | 10 | 0.000 | 7 | 10 |
| | Hospital | 22 | 3 | 8 | 0.000 | 17 | 27 |
| | Difference | -14 | 3 | -5 | 0.000 | -19 | -8 |
| Days off school | Home | 65 | 5 | 14 | 0.000 | 56 | 75 |
| | Hospital | 57 | 5 | 11 | 0.000 | 47 | 67 |
| | Difference | 8 | 7 | 1 | 0.230 | -5 | 22 |
| Total Cost Days 0-3 | Home | 331 | 26 | 13 | 0.000 | 280 | 383 |
| | Hospital | 352 | 31 | 11 | 0.000 | 292 | 412 |
| | Difference | -21 | 41 | -1 | 0.607 | -101 | 59 |

Table 12: INDIRECT COSTS (patient/carer): Follow-up period (24months)

| Variable | Arm | Observed Coef.(£) | Bootstrap Std. Error.(£) | z (£) | P> z | Normal-based [95% CI] (£) | |
|--------------------------|------------|-------------------|--------------------------|-------|-------|---------------------------|------|
| Days off work | Home | 869 | 132 | 7 | 0.000 | 609 | 1128 |
| | Hospital | 1180 | 256 | 5 | 0.000 | 679 | 1681 |
| | Difference | -312 | 285 | -1 | 0.274 | -871 | 247 |
| Travel | Home | 63 | 4 | 17 | 0.000 | 56 | 71 |
| | Hospital | 61 | 6 | 10 | 0.000 | 49 | 72 |
| | Difference | 3 | 7 | 0 | 0.692 | -11 | 17 |
| Out of pocket expenses | Home | 44 | 6 | 7 | 0.000 | 32 | 56 |
| | Hospital | 42 | 6 | 7 | 0.000 | 30 | 54 |
| | Difference | 2 | 9 | 0 | 0.782 | -15 | 20 |
| Days off school | Home | 443 | 41 | 11 | 0.000 | 363 | 523 |
| | Hospital | 454 | 54 | 8 | 0.000 | 349 | 559 |
| | Difference | -11 | 68 | -0 | 0.873 | -143 | 122 |
| Total Costs of Follow-up | Home | 1420 | 146 | 10 | 0.000 | 1134 | 1705 |
| | Hospital | 1737 | 270 | 6 | 0.000 | 1207 | 2267 |
| | Difference | -317 | 305 | -1 | 0.299 | -916 | 281 |

Table 13: Total Costs

| Variable | Arm | Observed Coef.(£) | Bootstrap Std. Error.(£) | z (£) | P> z | Normal-based [95% CI] (£) | |
|----------------------------------|------------|-------------------|--------------------------|-------|-------|---------------------------|-------|
| Patient/carer Total Cost | Home | 1751 | 155 | 11 | 0.000 | 1448 | 2054 |
| | Hospital | 2089 | 277 | 8 | 0.000 | 1547 | 2631 |
| | Difference | -338 | 319 | -1 | 0.288 | -963 | 286 |
| Direct Healthcare Total Cost | Home | 6450 | 228 | 28 | 0.000 | 6004 | 6897 |
| | Hospital | 8868 | 210 | 41 | 0.000 | 8255 | 9080 |
| | Difference | -2217 | 310 | -7 | 0.000 | -2825 | -1609 |
| Total Healthcare + Patient/carer | Home | 8201 | 314 | 26 | 0.000 | 7585 | 8817 |
| | Hospital | 10757 | 360 | 30 | 0.000 | 10050 | 11463 |
| | Difference | -2556 | 479 | -5 | 0.000 | -3494 | -1618 |

Table 14 Cost Consequences Analysis (CCA)

| Costs and Consequences | Arm | | | | Difference between Home and Hospital, mean (95% CI) (£) | P value |
|--|-----|---------------------------------------|----|---|---|---------|
| | N | Home management, mean (95% CI/SD) (£) | N | Hospital management, mean (95% CI/SD) (£) | | |
| Costs Impact | | | | | | |
| TOTAL Direct Healthcare Costs | 98 | £6450 (£6004 to £6897) | 95 | £8668 (£8255 to £9080) | -£2217 (-£2825 to -£1609) | <0.05 |
| TOTAL Patient/Carer Costs | 98 | £1751 (£1448 to £2054) | 95 | £2089 (£1547 to £2631) | -£338 (-£963 to £286) | 0.288 |
| TOTAL NHS + Patient/Carer Costs | 98 | £8201 (£7585 to £8817) | 95 | £10757 (£10050 to 11463) | -£2556 (-£3494 to -£1618) | <0.05 |
| Health Impact | | | | | | |
| HbA1c 24months (mmol/mol)* | 98 | 72.1 (SD = 21.7) | 95 | 72.6 (SD = 21.9) | 1.01 (0.93 to 1.09) | 0.863 |
| Physical Impact | | | | | | |
| Physical well-being at 1month** | 68 | 63.0 (SD = 20.38) | 62 | 70.4 (SD = 19.07) | -7.5 (-14.3 to -0.6) | 0.033 |
| Physical well-being at 24months** | 62 | 70.0 (SD = 17.64) | 58 | 71.0 (SD = 15.90) | -1.0 (-7.1 to 5.1) | 0.741 |
| Symptoms at 1 month*** | 69 | 60.2 (SD = 14.23) | 62 | 62.3 (SD = 13.09) | -2.1 (-6.8 to 2.6) | 0.384 |
| Symptoms at 24months*** | 62 | 62.0 (SD = 12.56) | 58 | 63.3 (SD = 14.11) | -1.2 (-5.9 to 3.6) | 0.633 |
| Psychological Impact | | | | | | |
| Worry at 1month*** | 68 | 72.7 (SD = 24.26) | 63 | 74.7 (SD = 22.94) | -2.1 (-10.2 to 6.1) | 0.616 |

| | | | | | | |
|-----------------------------------|----|-------------------|----|-------------------|--------------------------|-------|
| Worry at 24months*** | 62 | 73.3 (SD = 20.75) | 58 | 71.1 (SD = 23.74) | 2.1 (-5.9 to 10.2) | 0.601 |
| Emotional wellbeing at 1month** | 68 | 75.5 (SD = 17.98) | 61 | 77.6 (SD = 15.31) | -2.2 (-8.0 to 3.7) | 0.464 |
| Emotional wellbeing at 24months** | 62 | 76.6 (SD = 18.18) | 58 | 78.6 (SD = 12.35) | -2.0 (-7.7 to 3.6) | 0.482 |
| Self-esteem at 1month** | 68 | 53.9 (SD = 24.19) | 61 | 64.1 (SD = 21.22) | -10.4 (-18.3 to -2.4) | 0.011 |
| Self-esteem at 24months** | 62 | 63.4 (SD = 19.92) | 58 | 56.1 (SD = 18.71) | 7.2 (0.2 to 14.2) | 0.043 |
| Social Impact | | | | | | |
| Communication at 1month*** | 68 | 72.9 (SD = 28.01) | 63 | 81.3 (SD = 18.25) | -8.4 (-16.7 to -0.2) | 0.045 |
| Communication at 24months*** | 62 | 72.8 (SD = 25.83) | 58 | 78.2 (SD = 21.22) | -5.5 (-14.0 to 3.0) | 0.200 |
| Family at 1month** | 69 | 76.0 (SD = 17.61) | 61 | 79.7 (SD = 18.10) | -3.7 (-9.9 to 2.5) | 0.242 |
| Family at 24months** | 61 | 79.3 (SD = 17.81) | 58 | 77.9 (SD = 19.15) | 1.5 (-5.1 to 8.2) | 0.507 |
| Friends at 1month** | 69 | 79.3 (SD = 14.62) | 60 | 78.6 (SD = 16.33) | 0.5 (-4.8 to 5.9) | 0.849 |
| Friends at 24months** | 60 | 79.5 (SD = 17.03) | 58 | 77.4 (SD = 16.81) | 2.1 (-4.1 to 8.2) | 0.507 |
| School at 1month** | 65 | 67.0 (SD = 21.92) | 60 | 68.1 (SD = 18.65) | -1.1 (-8.3 to 6.1) | 0.763 |
| School at 24months** | 60 | 65.9 (SD = 17.32) | 57 | 61.5 (SD = 18.14) | 4.6 (-1.9 to 11.0) | 0.163 |

*Controlled for HbA1c at baseline. **KINDL-R – parent answers about child; higher score is better. ***PedsQL 3.0 Diabetes Module – parent answers about child.