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Paper:

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Table 1. Costs 2011–2012

NHS Reference Costs 2011-12 ⁹						
Admission Type	Currency code	Currency description	Activity*	National average unit cost	Number of bed days	Average length of stay (days)
Elective Inpatient HRG Data	KA03A	Parathyroid procedures with CC	1,859	£2,648	3,229	1.74
Non-Elective Inpatient HRG Data	KA03A	Parathyroid procedures with CC	75	£3,431	268	3.57
Elective Inpatient Excess Bed Day HRG Data	KA03A	Parathyroid procedures with CC	647	£276		
Non-Elective Inpatient Excess Bed Day HRG Data	KA03A	Parathyroid procedures with CC	821	£254		

* Activity records the number of patients admitted to hospital for that specific currency and admission type

NHS Payment by Results National Tariff 2011-12 ⁸				
Admission Type	HRG Code	HRG Name	Tariff	Trimpoint (days)*
Elective Inpatient HRG	KA03A	Parathyroid procedures with CC	£2,481	6
Non-Elective Inpatient HRG	KA03A	Parathyroid procedures with CC	£6,202	65
Inpatient Excess Bed	KA03A	Parathyroid procedures with CC	£200	

* The trimpoint relates to the average length of stay to which this tariff applies, hospital stays beyond this trimpoint incur an excess stay payment

Laboratory Tests		
Test	Cost per unit	Source
Ultrasound	£145	Cardiff & Vale Hospital Board
Nuclear medicine	£145	Cardiff & Vale Hospital Board
Parathyroid Hormone (PTH)	£21.15	Garside 2007 ¹⁶
Calcium	£2.84	Cardiff & Vale Hospital Board
Computerised Tomography (CT)/Magnetic Resonance Imaging (MRI)	£144.09	NHS Reference Costs 2010-2011 ⁹
Electrocardiogram (ECG)	£36.67	NHS Reference Costs 2010-2011 ⁹
Chest X-Ray	£86.52	Kidney Care 2011 ¹⁷
Full Blood Count (FBC)	£4.57	Kidney Care 2011 ¹⁷
Renal Profile	£4.11	Kidney Care 2011 ¹⁷
Liver Profile	£4.20	Kidney Care 2011 ¹⁷
Glucose level	£1.23	Cardiff & Vale Hospital Board
Lipid levels	£1.99	Cardiff & Vale Hospital Board
Calcium Phosphate	£2.84	Cardiff & Vale Hospital Board

Abbreviations: HRG: Healthcare Resource Group, CC: Complications,



Table 2. Patient demographics

	Database	Questionnaires
Period	2000-08	2010
Number	124	79
Age	51.1 (13.8)	53.0 (6.0)
Male	46.8%	-
Cause of ESRD		
Chronic Renal Failure	38.7%	-
IgA Nephropathy	11.3%	
Polycystic Kidney Disease	6.5%	
Renal vascular disease due to hypertension	6.5%	
Other causes	37.0%	
Length of ESRD Therapy	87.4 months	47.3 months
Dialysis		
Haemodialysis	46.0%	62.8%
Peritoneal dialysis	27.6%	17.0%

Abbreviations: ESRD: End Stage Renal Disease



Table 3. Hospital visits, tests, and medications

	Pre-Surgical		Surgical		
	Database	Questionnaires	Database	Questionnaires	
Hospital visits, n	1*	1.1 (centre mean 1.3)	-	-	
GP visits, n	-	-	-	-	
Test, % patients (n tests)	Database	Questionnaires	Database	Questionnaires	
Ultrasound	-	50.8 (1, 0.4)	-	16.7 (6.0, 0.5)	
Nuclear medicine	-	35.8 (1, 0.3)	-	0 (-)	
CT/MRI	-	1.8 (1, 0.02)	-	0 (-)	
PTH	45.2 (1.8)	100 (1.8, 1.7)	19.4 (1.6)	70.8 (1.9, 1.1)	
Calcium	71.0 (4.4)	83.3 (3.1, 2.2)	71.8 (12.2)	66.7 (5.6, 3.8)	
Chest X-ray	-	83.3 (1, 0.9)	-	-	
ECG	-	100 (1, 1)	-	-	
FBC	71.8 (5.8)	100 (3.6, 2.7)	59.7 (4.9)	75.0 (2.9, 1.7)	
Renal profile	71.8 (5.6)	100 (6.1, 4.3)	67.7 (6.0)	60.0 (3.3, 1.9)	
Liver profile	71.8 (4.9)	100 (3.3, 2.4)	71.8 (6.4)	70.8 (2.5, 1.4)	
Glucose levels	61.3 (3.4)	85.0 (2.1, 1.5)	33.1 (2.4)	35.0 (3.5, 0.9)	
Lipid levels	32.3 (1.5)	53.3 (1.3, 0.9)	0.8 (1.0)	1.7 (1.0, 0.01)	
Calcium phosphate	71.0 (4.8)	88.3 (2.8, 2.3)	51.6 (4.7)	66.7 (3.9, 1.7)	
Medications, % patients, dose, duration	Database	Questionnaires [^]	Database	Questionnaires [^]	
Calcium	16.1, 1.3 g, 88.0 days	56.7, 1.4 g, 45.9 days (47.5, 4.8 g, 69 days)	21.8, 2.5 g, 5.6 days	100, 4.8 g, 2.8 days (100, 4.0 g, 3.9 days)	56.5
Vitamin D	35.5, 1 µg, 80.5 days	79.7, 1.6 µg, 9.7 days (77.5, 2.9 µg, 20 days)	42.7, 2 µg, 6.5 days	100, 3.6 µg, 2.8 days (100, 3.7 µg, 3.9 days)	84.7
Calcium & Vitamin D	-	54.2, 0.8 µg, 40.2 days (38.3, 2.5 µg, 61.7 days)	-	30.4, 1.4 µg, 6.0 days (33.3, 6.0 µg, 6.0 days)	
Phosphate binders	15.3, 2.5 g, 81.6 days	66.3, 2.3 g, 48.8 days (54.2, 6.6 g, 80 days)	15.3, 2.6 g, 5.7 days	67.9, 2.4 g, 2.6 days (64.2, 3.2 g, 4.7 days)	15.3
Cinacalcet	-	47.3, 0.01 g, 42.6 days (35.0, 0.08 g, 90 days)	-	-	
Antibiotics	-	-	17.7, 1.5 g, 5.6 days	-	23.4
Analgesics	-	-	47.6, 2.7 g, 5.8 days	-	50.0

*estimated by physician [^]centre means provided in parentheses.

Abbreviations: GP: General Practitioner, CT/MRI: Computerised Tomography/ Magnetic Resonance Imaging, PTH: Parathyroid Ho