

SECTION I BONE MINERAL METABOLISM

The laboratory data relating to bone mineral metabolism were audited in May 2012 for all prevalent patients receiving hospital or home haemodialysis. Pre dialysis blood samples were collected after a short interdialytic gap. Any samples marked 'post haemodialysis' were excluded.

As recommended by the Working Group of Senior Scottish Clinical Biochemists on bone biochemistry targets in the management of renal failure, the PTH data in this report are presented according to the recommended assay specific targets appropriate to each renal unit.

The working group's recommendations have been adopted across Scotland. Those recommendations; the local ranges for corrected calcium for the biochemistry laboratories that serve each dialysis unit; and assay specific PTH ranges are available on the SRR website:

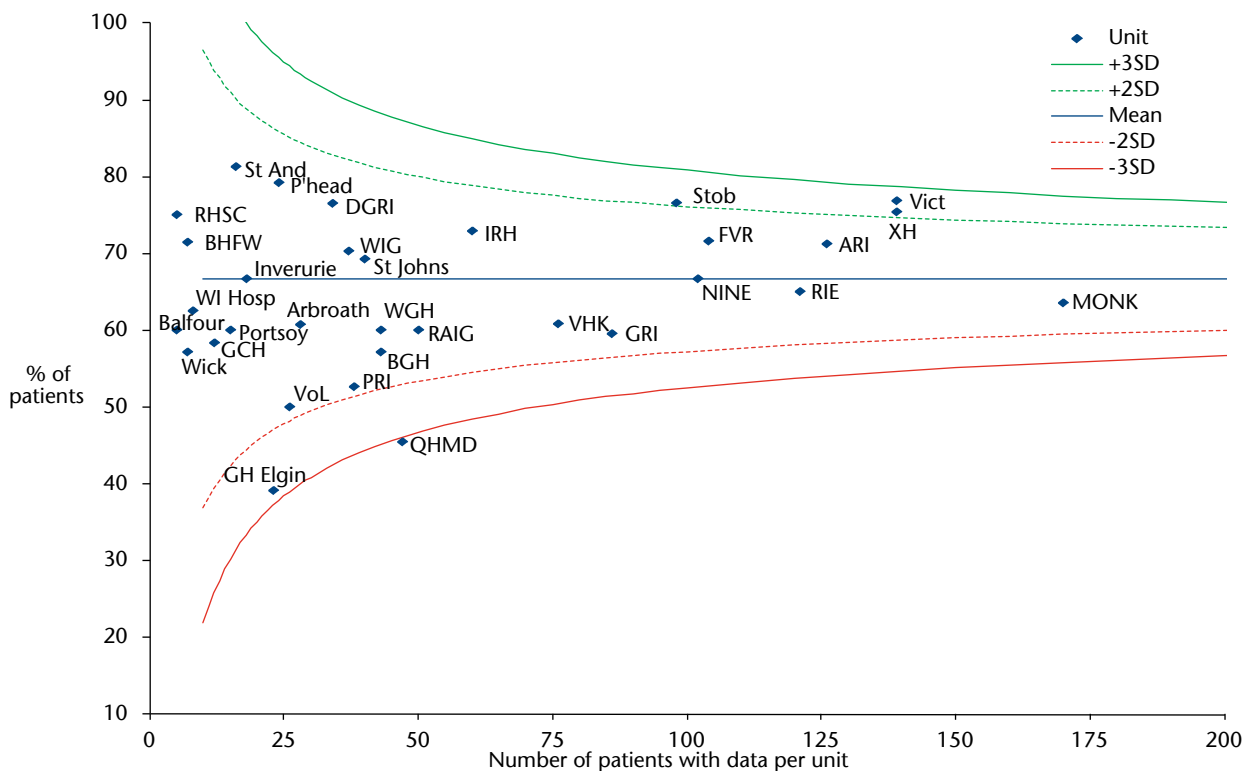
<http://www.srr.scot.nhs.uk/Projects/Projects1.html#calc>

I1 Achievement of guideline targets for phosphate, corrected calcium and PTH in haemodialysis patients by renal unit May 2012

Renal Unit	Number of patients	% with PO ₄ result	Mean PO ₄ mmol/L	% with result <1.7 mmol/L	% with cCa result	% with cCa in normal range	% with PTH result	% PTH result 2-9x UL † normal
ARI	219	97.7	1.57	67.3	97.7	81.3	93.6	45.9
XH	150	98.7	1.39	75.7	98.7	80.4	91.3	46.0
DGRI	50	98.0	1.54	71.4	98.0	91.8	92.0	60.9
GLAS	590	98.5	1.41	70.2	98.5	86.1	42.5	54.2
MONK	181	99.5	1.51	65.6	99.5	87.8	94.0	57.3
NINE	181	97.8	1.61	62.7	98.3	82.6	82.9	56.7
RAIG	84	100	1.63	60.7	100	90.5	98.8	54.2
RHSC	5	80.0	1.34	75.0	80.0	50.0	60.0	66.7
RIE	266	95.5	1.62	61.8	99.2	83.0	91.4	65.8
VHK	147	95.2	1.63	58.6	96.6	89.4	89.8	67.4
Scotland	1873	97.8	1.52	66.7	98.5	85.0	75.8	56.3

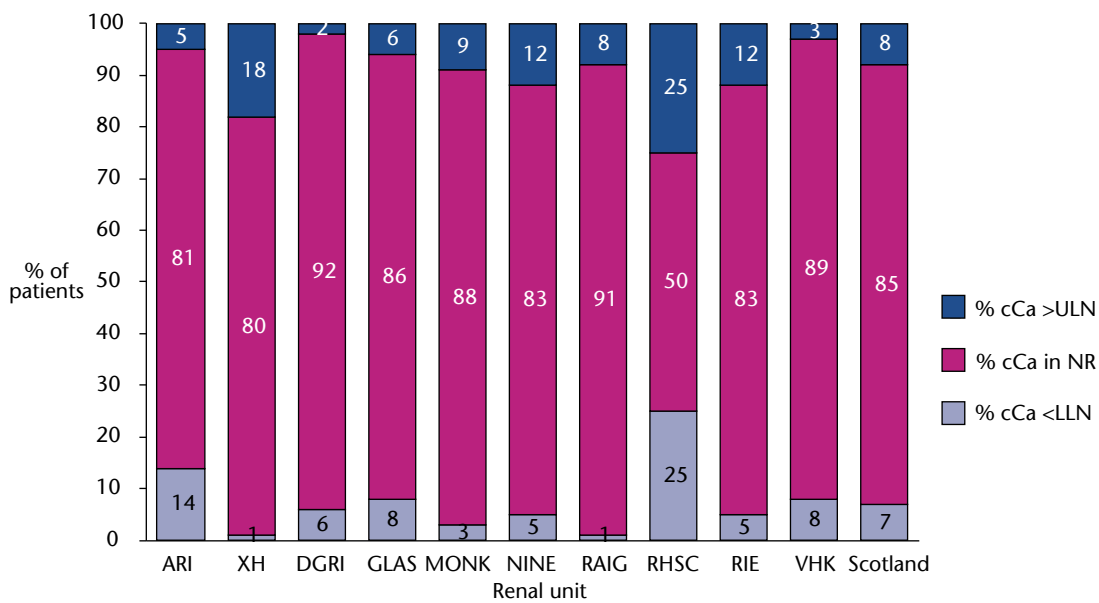
† UL-upper limit of normal

12 Percentage of patients achieving pre-HD PO4 target of <1.7 mmol/L by dialysis unit May 2012



Analytical methods for phosphate are fairly standard across Scotland and results are comparable both between units, and against the UKRA recommended guideline (pre-HD PO4 <1.7 mmol/L).

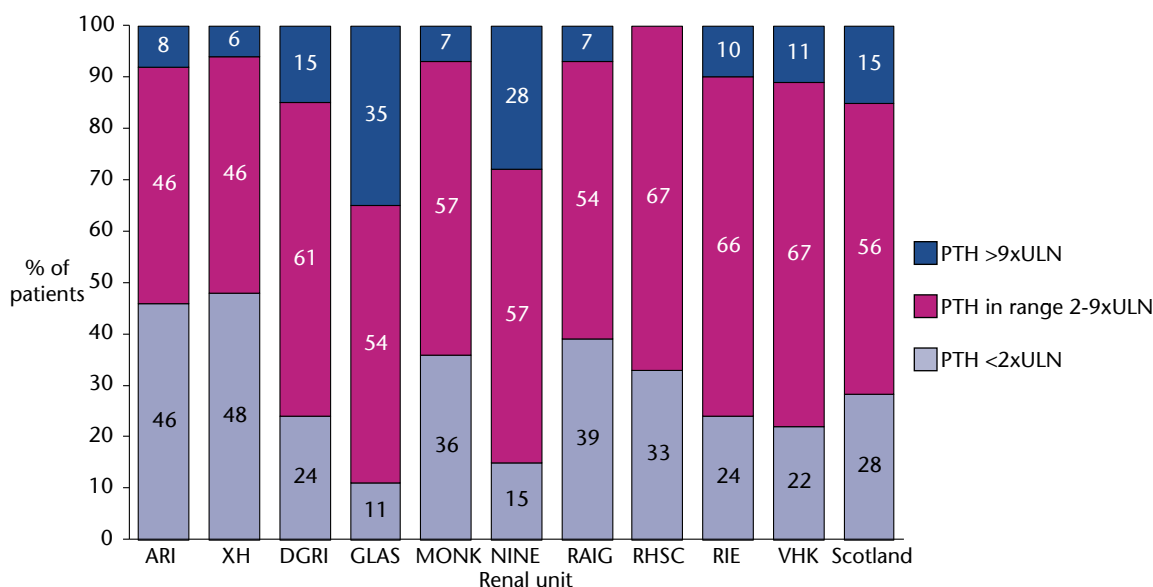
13 Distribution of pre HD corrected serum calcium in haemodialysis patients by renal unit May 2012



The graph shows the percentage of patients within each unit, who were hypocalcaemic (cCa < lower limit of normal range (LLN)), normocalcaemic (cCa in normal range (NR)) and hypercalcaemic (cCa > upper limit of normal range (ULN)) according to the local assay ranges for the biochemistry laboratory serving each dialysis unit.

The UKRA guideline suggests that corrected calcium should be maintained within the local normal range, the normal range differs between renal units, therefore actual calcium values are not shown.

14 Distribution of pre HD serum PTH in haemodialysis patients by renal unit May 2012



The UKRA guideline suggests that PTH levels should be maintained between 2 and 9 times the upper limit of normal (ULN) for the assay used.