

SECTION I BONE MINERAL METABOLISM

The laboratory data relating to bone mineral metabolism were audited in May 2013 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 which have been adopted across Scotland are available on the SRR website:

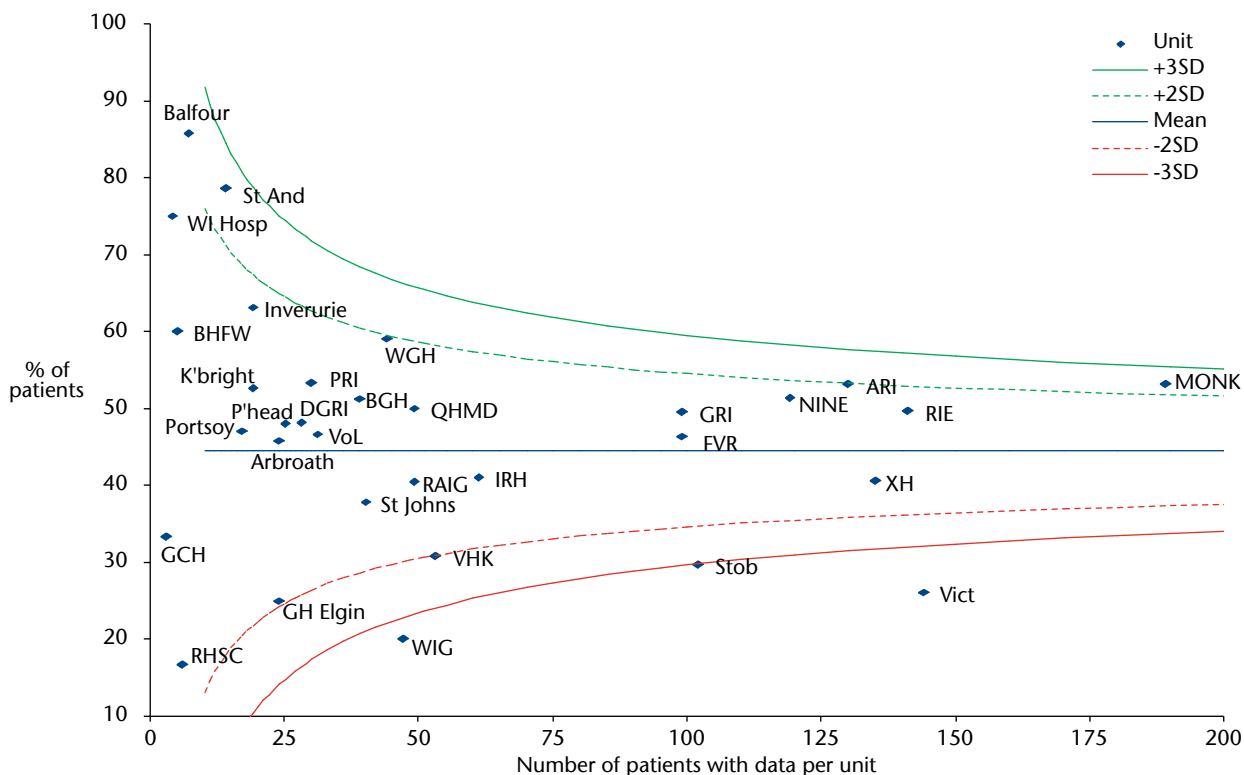
<http://www.srr.scot.nhs.uk/Projects/Projects1.html#calc>

I1 Achievement of guideline targets for phosphate, corrected calcium and PTH in haemodialysis patients by renal unit May 2013								
Renal Unit	Number of patients	% with PO4 result	Mean PO4 mmol/L	% with result 1.1-1.7 mmol/L	% with cCa result	% with cCa in normal range	% with PTH result	% PTH result 2-9x UL* normal
ARI	231	98.3	1.56	49.8	98.3	78.9	81.0	49.7
XH	142	99.3	1.47	38.3	99.3	81.6	80.3	51.8
DGRI	51	98.0	1.65	50.0	98.0	90.0	98.0	66.0
GLAS	613	98.5	1.42	36.4	98.5	83.6	91.8	49.3
MONK	189	99.5	1.48	53.2	99.5	74.5	99.5	61.2
NINE	176	96.6	1.74	50.6	96.6	76.5	88.1	56.1
RAIG	64	96.9	1.74	43.5	96.9	80.6	96.9	56.5
RHSC	6	100.0	1.70	16.7	100.0	100.0	83.3	20.0
RIE	270	97.4	1.67	49.0	97.4	78.7	92.2	65.5
VHK	143	99.3	1.68	45.1	99.3	92.3	96.5	71.0
Scotland	1885	97.5	1.56	44.6	98.3	81.3	90.7	56.0

† UL-upper limit of normal

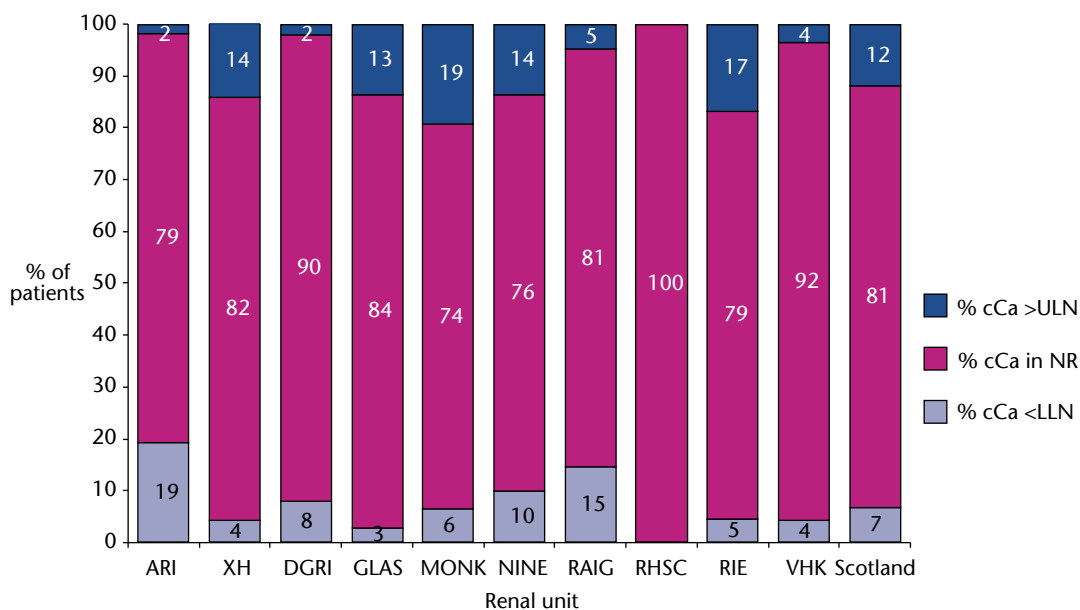
Analytical methods for phosphate are standard across Scotland and results are comparable both between units, and against the UKRA recommended guideline (Pre-HD PO4 1.1-1.7 mmol/L).

12 Percentage of patients achieving pre HD PO4 target of 1.1-1.7 mmol/L by dialysis unit May 2013



Of the 1838 (97.5%) patients who had phosphate results, 348 (18.9%) had a phosphate <1.1 mmol/L, 819 (44.6%) achieved the UKRA standard and 671 (36.5%) had phosphate >1.7 mmol/L.

13 Distribution of pre HD corrected serum calcium in haemodialysis patients by renal unit May 2013



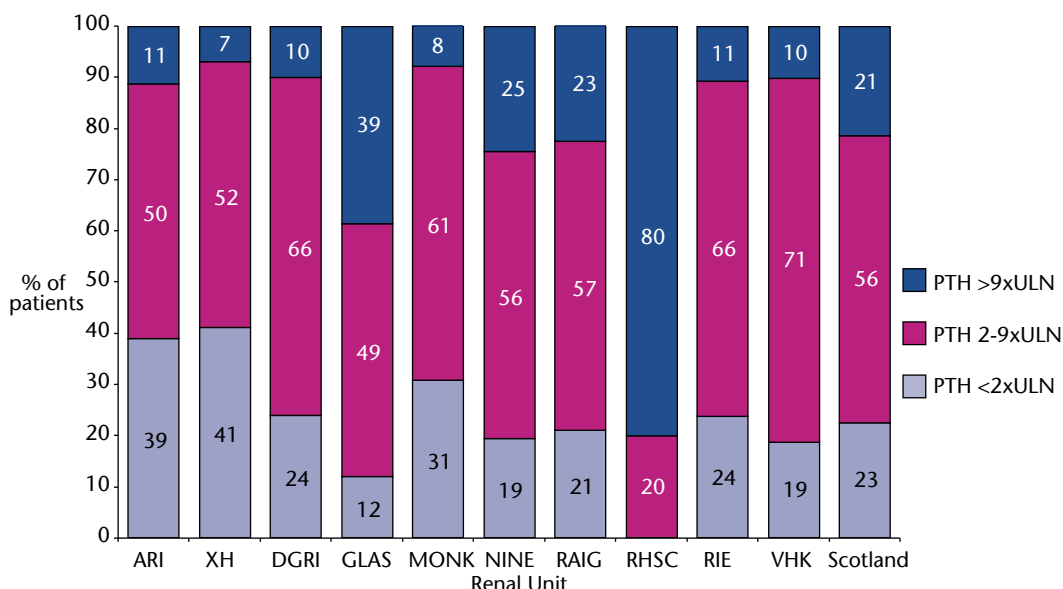
The graph shows the percentage of patients within each unit, who were hypocalcaemic (cCa < lower limit of normal range (LLN)), normocalcaemic (cCa in normal range (NR)) and hypercalcaemic (cCa > upper limit of normal range (ULN)) according to the local assay ranges for the biochemistry laboratory serving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

The local ranges for corrected calcium for the biochemistry laboratories that serve each dialysis unit are available on the SRR website.

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

14 Distribution of pre HD serum PTH in haemodialysis patients by renal unit May 2013



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.

Assay specific PTH ranges are available on the SRR website:

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