SECTION L BONE MINERAL METABOLISM

The laboratory data relating to bone mineral metabolism were audited in May 2015 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

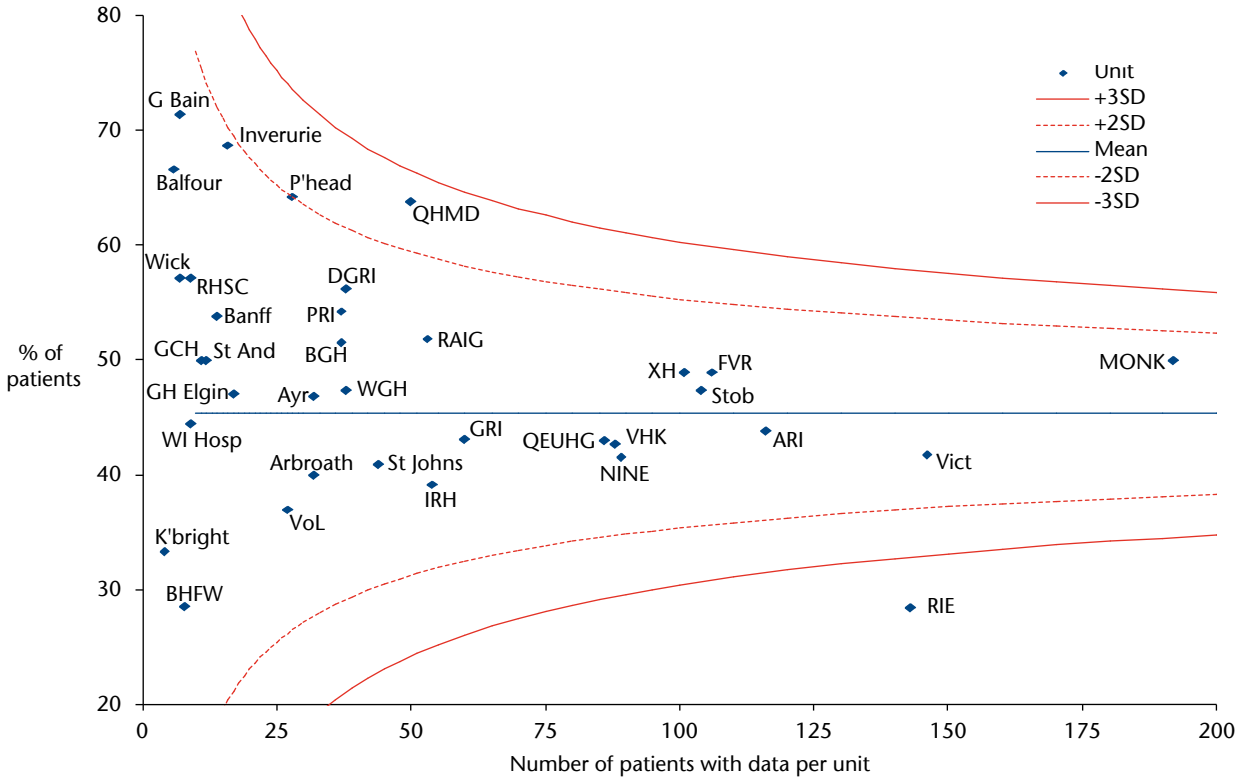
L1 Achievement of guideline targets for phosphate, corrected calcium and PTH in haemodialysis patients by renal unit May 2015

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	220	**98.6**	1.56	**49.3**	**99.5**	**79.5**	**98.2**	**40.7**
XH	144	**95.8**	1.36	**47.8**	**96.5**	**76.3**	**90.3**	**58.5**
DGRI	55	**81.8**	1.56	**53.3**	**83.6**	**87.0**	**90.9**	**68.0**
GLAS	609	**87.7**	1.67	**44.0**	**92.9**	**89.2**	**89.5**	**44.4**
MONK	191	**97.9**	1.48	**49.7**	**98.4**	**72.9**	**98.4**	**58.0**
NINE	181	**95.6**	1.68	**42.2**	**95.6**	**78.6**	**83.4**	**53.0**
RAIG	78	**97.4**	1.69	**48.7**	**100.0**	**89.7**	**88.5**	**47.8**
RHSC	9	**77.8**	1.65	**57.1**	**77.8**	**71.4**	**88.9**	**25.0**
RIE	269	**92.9**	1.72	**36.8**	**97.4**	**82.8**	**92.2**	**56.9**
VHK	150	**94.7**	1.62	**50.7**	**96.0**	**85.4**	**94.0**	**64.5**
Scotland	**1906**	**92.8**	**1.61**	**45.4**	**95.6**	**83.0**	**91.6**	**51.3**

* UL - upper limit of normal

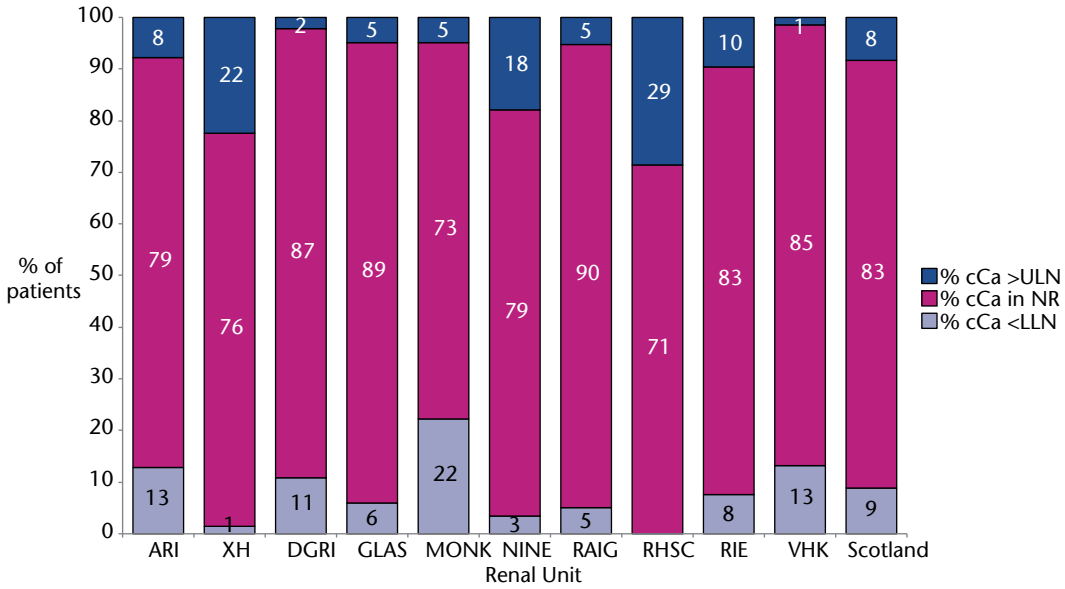
Analytical methods for phosphate are standard across Scotland and results are comparable both between units, and against the UKRA recommended guideline (Pre-dialysis PO4 between 1.1 and 1.7 mmol/L).

L2 Percentage of hospital HD patients achieving pre-dialysis PO4 target of 1.1-1.7 mmol/L by dialysis unit May 2015



1769 (92.8%) patients had phosphate results, 259 (14.6%) had a phosphate <1.1 mmol/L, 803 (45.4%) achieved the UKRA standard and 707 (40.0%) had phosphate >1.7 mmol/L.

L3 Distribution of pre-dialysis corrected serum calcium in haemodialysis patients by renal unit May 2015



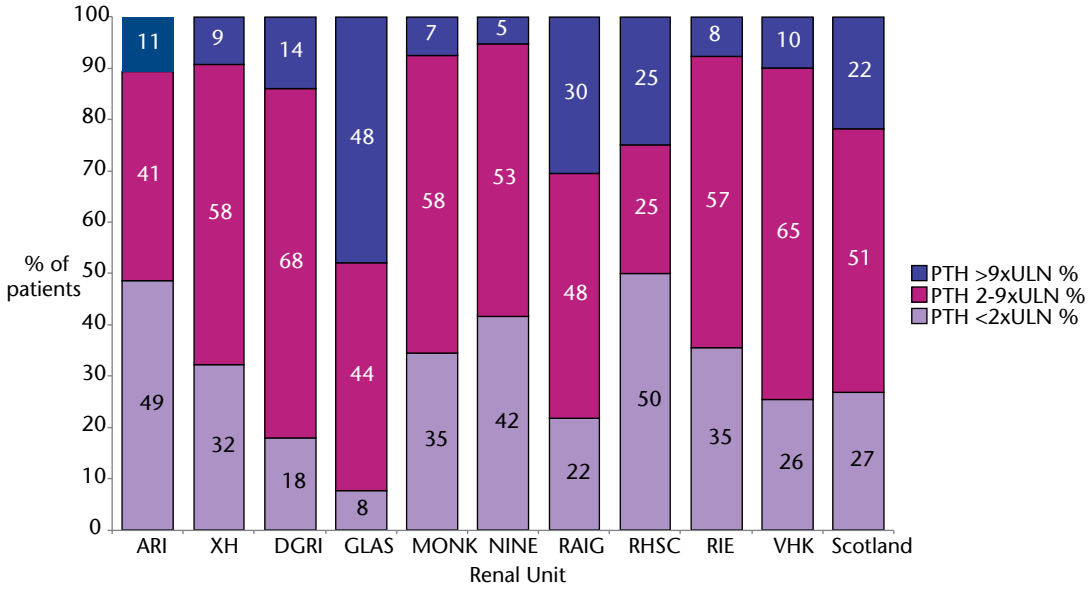
The graph shows the percentage of patients within each unit, who were hypocalcaemic (cCa< lower limit of normal range (LLN)), normocalcaemic (cCa in normal range (NR)) and hypercalcaemic (cCa>upper limit of normal range (ULN)) according to the local assay ranges for the biochemistry laboratory serving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

L4 Distribution of pre-dialysis serum PTH in haemodialysis patients by renal unit May 2015



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. The assay used differs between renal units, therefore actual PTH values are not shown.

Assay specific PTH ranges are available on the SRR website:

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