Section D ANAEMIA

We audited all prevalent adult and paediatric patients using hospital or home haemodialysis in Scotland on 07 May 2007 and on 05 May 2008. Haemoglobin concentrations were measured in a predialysis blood sample after the first short interdialytic gap of the audit week, or as soon as possible thereafter.

The use of erythropoiesis stimulating agents (ESA) at the time of the audit is also reported.

The target for haemoglobin is not clear, NHS Quality Improvement Scotland (QIS) specify a target of ≥10 g/dL in ≥85% of patients after 3 months of RRT. The UK Renal Association standard (version 4) is a target haemoglobin 10.5 – 12.5 g/dL. It should be noted that patients who have haemoglobin in excess of 12.5 g/dL are reported as not meeting the UKRA target range, even if they have a haemoglobin within the reference range of the normal population, irrespective of ESA use.

The denominator is the number of patients with data reported apart from results for which a standard has been set, in which case the denominator is the total number of patients.

Further details of the audit methods are available on the SRR website:

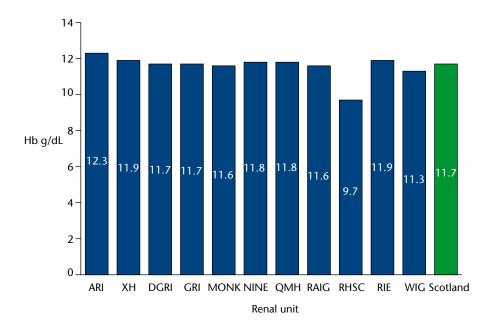
http://www.srr.scot.nhs.uk/About/Guide.htm

| D1 Number of patients using HD with haemoglobin and ESA data: Spring 2007 | | | | | | | | | |
|---|--------------------------|----------------------|------------|--------------------------------------|-----------------------------------|----------------------------------|----------|--|--|
| Renal unit | Number of patients | Median Hb g/dL | Range | % patients with Hb ≥10 g/dL | % patients with Hb 10.5-12.5 g/dL | % patients with no data | % on ESA | | |
| ARI | 199 | 12.3 | 7.0 - 15.9 | 88.4 | 43.1 | 1.0 | 95 | | |
| XH | 135 | 11.9 | 7.8 - 15.3 | 86.7 | 47.4 | 1.5 | 87 | | |
| DGRI | 48 | 11.7 | 8.9 - 14.5 | 87.5 | 58.3 | 0 | 79 | | |
| GRI | 284 | 11.7 | 6.6 - 16.5 | 77.5 | 44.0 | 2.5 | 85 | | |
| MONK | 139 | 11.6 | 7.9 - 14.2 | 82.7 | 53.3 | 1.4 | 87 | | |
| NINE | 142 | 11.8 | 7.2 - 15.0 | 77.5 | 49.6 | 4.9 | 88 | | |
| QMHD | 99 | 11.8 | 6.5 - 15.4 | 82.8 | 44.7 | 5.1 | 92 | | |
| RAIG | 79 | 11.6 | 8.3 - 15.4 | 84.8 | 61.1 | 8.9 | 92 | | |
| RHSC* | 2 | 9.7 | 8.8 -10.6 | 50.0 | 50.0 | 0 | | | |
| RIE | 271 | 11.9 | 6.4 - 15.3 | 86.7 | 52.1 | 1.5 | 95 | | |
| WIG | 286 | 11.3 | 6.9 - 16.0 | 77.3 | 45.8 | 0.7 | 82 | | |
| Scotland | 1687 | 11.7 | 6.4 - 16.5 | 82.3 | 48.3 | 2.3 | 88 | | |

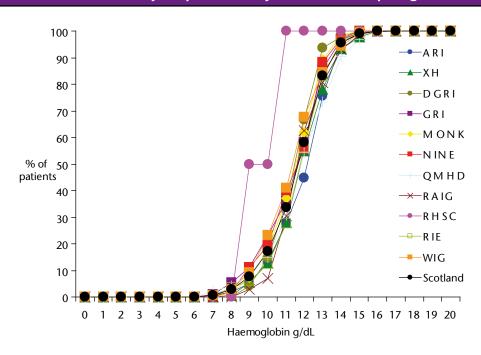
^{*} Data for RHSC. Note that the standards set for adult patients are not applicable to children. Royal Hospital for Sick Children data are given for descriptive purposes only.

Four units achieved the standard of 85% of patients with Hb \geq 10 g/dL, the denominator includes those patients for whom data was not available.

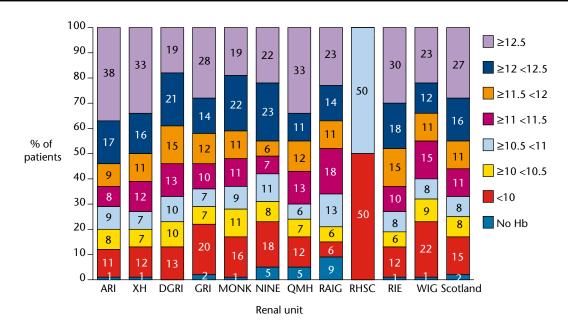
D2 Median haemoglobin in haemodialysis patients by renal unit: Spring 2007



Percentage cumulative frequency distribution of haemoglobin concentration in haemodialysis patients by renal unit: Spring 2007



D4 Distribution of haemoglobin concentration (g/dL) in haemodialysis patients by renal unit: Spring 2007



| D5 ESA use in adult haemodialysis patients: Spring 2007 | | | | | | | | |
|---|----------------------|---------------------------------------|--|--|--|--|--|--|
| Renal unit | % of patients on ESA | % of patients with Hb >13 g/dL on ESA | | | | | | |
| ARI | 95 | 92 | | | | | | |
| XH | 87 | 76 | | | | | | |
| DGRI | 79 | 67 | | | | | | |
| GRI | 85 | 92 | | | | | | |
| MONK | 87 | 63 | | | | | | |
| NINE | 88 | 90 | | | | | | |
| QMHD | 92 | 85 | | | | | | |
| RAIG | 92 | 93 | | | | | | |
| RIE | 95 | 92 | | | | | | |
| WIG | 82 | 74 | | | | | | |
| Scotland | 88 | 81 | | | | | | |

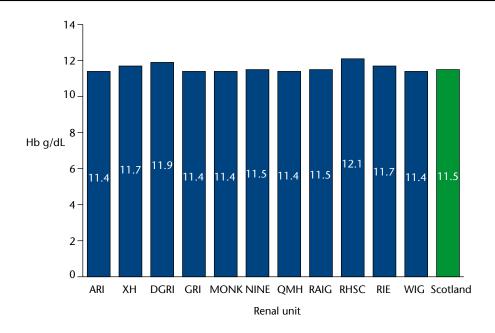
Three hundred and ten patients had haemoglobin \geq 13 g/dL, 81% of them were treated with an ESA at the time of the audit.

| D6 Number of patients using HD with haemoglobin and ESA data: Spring 2008 | | | | | | | | | |
|---|--------------------|-------------------|------------|------------------------------|-------------------------------------|-------------------------|--|--|--|
| Renal unit | Number of patients | Median Hb g/dL | Range | % patients with Hb ≥ 10 g/dL | % patients with Hb 10.5 – 12.5 g/dL | % patients with no data | | | |
| ARI | 195 | 11.4 | 7.6 - 14.9 | 81.5 | 54.2 | 1.5 | | | |
| XH | 142 | 11.7 | 7.0 - 15.9 | 88.0 | 50.0 | 0.0 | | | |
| DGRI | 51 | 11.9 | 7.2 - 14.1 | 90.2 | 60.8 | 0.0 | | | |
| GRI | 322 | 11.4 | 6.3 - 14.7 | 80.4 | 49.7 | 0.0 | | | |
| MONK | 147 | 11.4 | 6.8 - 14.8 | 82.3 | 57.8 | 0.0 | | | |
| NINE | 172 | 11.5 | 6.9 - 18.6 | 80.8 | 52.9 | 1.2 | | | |
| QMHD | 106 | 11.4 | 7.0 - 14.9 | 83.0 | 49.1 | 0.0 | | | |
| RAIG | 92 | 11.5 | 7.2 - 16.1 | 88.0 | 46.7 | 0.0 | | | |
| RHSC | 6 | 12.1 | 9.8 - 12.1 | 50.0 | 75.0 | 33.3 | | | |
| RIE | 277 | 11.7 | 5.9 - 16.0 | 85.2 | 55.1 | 0.4 | | | |
| WIG | 280 | 11.4 | 7.1 - 16.8 | 82.1 | 52.9 | 0.0 | | | |
| Scotland | 1790 | 11.5 | 5.9 - 18.6 | 83.1 | 52.7 | 0.4 | | | |

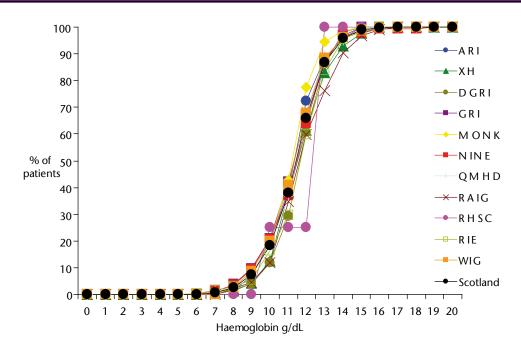
Four units achieved the standard of 85% of patients with Hb \geq 10 g/dL, the denominator includes those patients for whom data were not available.

D7

Median haemoglobin in haemodialysis patients by renal unit: Spring 2008



D8 Percentage cumulative frequency distribution of haemoglobin concentration in haemodialysis patients by renal unit: Spring 2008



D9 Distribution of haemoglobin concentration (g/dL) in haemodialysis patients by renal unit: Spring 2008

