Summary of the 2016 ERA-EDTA Registry Annual Report
National and regional renal registries that contributed data to the 2016 ERA-EDTA Registry Annual Report

- Red: Renal registries contributing with individual patient data
- Orange: Renal registries contributing with aggregated data
Incident patients accepted for RRT in 2016, at day 1

by country

- <100 pmp
- 100-149 pmp
- 150-199 pmp
- ≥200 pmp
- No data available
Incident patients accepted for RRT in 2016 at day 1 by country

**Unadjusted incidence**
renal registries providing individual patient data

- Estonia: 85
- Serbia: 88
- Iceland: 89
- Switzerland: 101
- Spain, Cantabria: 102
- Finland: 106
- UK, Scotland: 106
- Norway: 110
- Spain, Extremadura: 110
- Bosnia and Herzegovina: 112
- the Netherlands: 117
- UK, England: 117
- UK, Wales: 119
- UK, Northern Ireland: 121
- Sweden: 121
- Spain, Aragon: 125
- Spain, Castile and Leon: 126
- Denmark: 128
- Spain, Navarre: 128
- Spain, Basque country: 131
- Austria: 133
- Spain, Community of Madrid: 135
- Spain, Andalusia: 135
- Spain, Region of Murcia: 138
- Spain, Castile-La Mancha: 140
- Spain, Galicia: 147
- France: 165
- Spain, Catalonia: 167
- Spain, Valencian region: 173
- Romania: 177
- Spain, Asturias: 181
- Belgium, Dutch-speaking: 187
- Belgium, French-speaking: 188
- Greece: 251
- All countries: 143

**Unadjusted incidence**
renal registries providing aggregated data

- Ukraine: 32
- Russia: 59
- Belarus: 62
- Albania: 88
- Lithuania: 107
- Latvia: 110
- Turkey: 140
- Spain (All): 142
- Italy (6 of 20 regions): 144
- Poland: 149
- Slovakia: 154
- Bulgaria: 156
- Tunisia, Sfax region: 159
- Macedonia: 164
- Croatia: 180
- Israel: 189
- Cyprus: 193
- Georgia: 203
- Czech Republic: 236
- All countries: 243
Incident patients accepted for RRT in 2016 at day 1 by country adjusted for age and gender

Adjusted incidence
renal registries providing individual patient data

<table>
<thead>
<tr>
<th>Country</th>
<th>Incidence (per million population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serbia</td>
<td>79</td>
</tr>
<tr>
<td>Estonia</td>
<td>87</td>
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<tr>
<td>Spain, Cantabria</td>
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</tr>
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<td>Finland</td>
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<td>Switzerland</td>
<td>97</td>
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<tr>
<td>Spain, Castile and León</td>
<td>99</td>
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<tr>
<td>Spain, Extremadura</td>
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<td>UK, Scotland</td>
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<td>Spain, Basque country</td>
<td>116</td>
</tr>
<tr>
<td>UK, England</td>
<td>118</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>119</td>
</tr>
<tr>
<td>Spain, Navarre</td>
<td>119</td>
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<tr>
<td>Spain, Galicia</td>
<td>120</td>
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<td>Denmark</td>
<td>122</td>
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<td>Austria</td>
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<tr>
<td>UK, Northern Ireland</td>
<td>130</td>
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<td>Spain, Castile-La Mancha</td>
<td>137</td>
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<tr>
<td>Spain, Andalusia</td>
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<td>Spain, Region of Murcia</td>
<td>152</td>
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<td>France</td>
<td>158</td>
</tr>
<tr>
<td>Spain, Catalonia</td>
<td>162</td>
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<tr>
<td>Spain, Valencian region</td>
<td>164</td>
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<tr>
<td>Belgium, Dutch-speaking</td>
<td>166</td>
</tr>
<tr>
<td>Romania</td>
<td>173</td>
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<tr>
<td>Belgium, French-speaking</td>
<td>197</td>
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<tr>
<td>Greece</td>
<td>210</td>
</tr>
<tr>
<td>All countries</td>
<td>138</td>
</tr>
</tbody>
</table>

Adjusted incidence
renal registries providing aggregated data

<table>
<thead>
<tr>
<th>Country</th>
<th>Incidence (per million population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>60</td>
</tr>
<tr>
<td>Albania</td>
<td>87</td>
</tr>
<tr>
<td>Latvia</td>
<td>102</td>
</tr>
<tr>
<td>Lithuania</td>
<td>102</td>
</tr>
<tr>
<td>Italy (6 of 20 regions)</td>
<td>121</td>
</tr>
<tr>
<td>Spain (All)</td>
<td>131</td>
</tr>
<tr>
<td>Slovakia</td>
<td>162</td>
</tr>
<tr>
<td>Croatia</td>
<td>164</td>
</tr>
<tr>
<td>Estonia</td>
<td>218</td>
</tr>
<tr>
<td>Sfax region</td>
<td>230</td>
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<tr>
<td>Cyprus</td>
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<td>Macedonia</td>
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<td>Israel</td>
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<td>All countries</td>
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</tbody>
</table>

Incidence per million population.
Incident patients accepted for RRT in 2016 at day 1

Mean age at start of RRT
renal registries providing individual patient data

<table>
<thead>
<tr>
<th>Country</th>
<th>Mean Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK, Scotland</td>
<td>59.2</td>
</tr>
<tr>
<td>Estonia</td>
<td>59.7</td>
</tr>
<tr>
<td>Finland</td>
<td>60.9</td>
</tr>
<tr>
<td>Iceland</td>
<td>61.7</td>
</tr>
<tr>
<td>Serbia</td>
<td>62.0</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>62.2</td>
</tr>
<tr>
<td>UK, England</td>
<td>62.3</td>
</tr>
<tr>
<td>Romania</td>
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</tr>
<tr>
<td>UK, Northern Ireland</td>
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<tr>
<td>Spain, Cantabria</td>
<td>63.1</td>
</tr>
<tr>
<td>Norway</td>
<td>63.1</td>
</tr>
<tr>
<td>Norway</td>
<td>63.2</td>
</tr>
<tr>
<td>Denmark</td>
<td>63.3</td>
</tr>
<tr>
<td>Spain, Region of Murcia</td>
<td>63.3</td>
</tr>
<tr>
<td>Spain, Basque country</td>
<td>63.4</td>
</tr>
<tr>
<td>Spain, Andalusia</td>
<td>63.5</td>
</tr>
<tr>
<td>Spain, Aragon</td>
<td>63.5</td>
</tr>
<tr>
<td>Switzerland</td>
<td>63.8</td>
</tr>
<tr>
<td>Sweden</td>
<td>64.0</td>
</tr>
<tr>
<td>the Netherlands</td>
<td>64.2</td>
</tr>
<tr>
<td>Austria</td>
<td>64.4</td>
</tr>
<tr>
<td>Spain, Navarre</td>
<td>64.7</td>
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<tr>
<td>Spain, Asturias</td>
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<tr>
<td>Spain, Community of Madrid</td>
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<tr>
<td>UK, Wales</td>
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</tr>
<tr>
<td>Spain, Extremadura</td>
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</tr>
<tr>
<td>Spain, Valencian region</td>
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</tr>
<tr>
<td>Spain, Catalonia</td>
<td>65.9</td>
</tr>
<tr>
<td>Spain, Galicia</td>
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</tr>
<tr>
<td>Spain, Castile-La Mancha</td>
<td>66.1</td>
</tr>
<tr>
<td>Belgium, French-speaking</td>
<td>67.3</td>
</tr>
<tr>
<td>France</td>
<td>67.9</td>
</tr>
<tr>
<td>Spain, Castile and Leon</td>
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</tr>
<tr>
<td>Greece</td>
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<tr>
<td>Belgium, Dutch-speaking</td>
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<tr>
<td>All countries</td>
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</tbody>
</table>

Mean age at start of RRT
renal registries providing aggregated data

<table>
<thead>
<tr>
<th>Country</th>
<th>Mean Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukraine</td>
<td>49.7</td>
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<tr>
<td>Albania</td>
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</tr>
<tr>
<td>Belarus</td>
<td>53.0</td>
</tr>
<tr>
<td>Russia</td>
<td>54.3</td>
</tr>
<tr>
<td>Latvia</td>
<td>60.3</td>
</tr>
<tr>
<td>Georgia</td>
<td>60.4</td>
</tr>
<tr>
<td>Tunisia, Sfax region</td>
<td>60.5</td>
</tr>
<tr>
<td>Lithuania</td>
<td>61.8</td>
</tr>
<tr>
<td>Spain (All)</td>
<td>63.0</td>
</tr>
<tr>
<td>Macedonia</td>
<td>63.7</td>
</tr>
<tr>
<td>Spain</td>
<td>63.7</td>
</tr>
<tr>
<td>Slovakia</td>
<td>64.6</td>
</tr>
<tr>
<td>Croatia</td>
<td>64.9</td>
</tr>
<tr>
<td>Israel</td>
<td>65.1</td>
</tr>
<tr>
<td>Cyprus</td>
<td>66.7</td>
</tr>
<tr>
<td>Italy (6 of 20 regions)</td>
<td>68.8</td>
</tr>
<tr>
<td>All countries</td>
<td>59.9</td>
</tr>
</tbody>
</table>
Incident patients accepted for RRT in 2016, at day 1
registries providing individual patient data only

Mean age at start of RRT

Male patients

- UK, Scotland: 59.5
- Estonia: 59.7
- Serbia: 61.1
- Finland: 61.4
- Romania: 61.7
- Bosnia and Herzegovina: 62.5
- UK, Northern Ireland: 62.9
- Iceland: 63.0
- Spain, Andalusia: 63.2
- Spain, Region of Murcia: 63.4
- Denmark: 63.5
- Spain, Aragon: 63.7
- Spain, Asturias: 64.4
- Spain, Navarre: 64.5
- Sweden: 64.6
- the Netherlands: 64.7
- Switzerland: 64.9
- Spain, Basque country: 65.0
- Spain, Cantabria: 65.4
- Spain, Castile-La Mancha: 65.5
- Spain, Extremadura: 65.8
- Spain, Galicia: 65.8
- UK, Wales: 65.9
- Spain, Community of Madrid: 66.2
- Spain, Catalonia: 66.2
- Spain, Valencian region: 66.2
- Belgium, French-speaking: 66.5
- Spain, Castile and Leon: 66.5
- Belgium, Dutch-speaking: 67.0
- Greece: 70.2
- Belgium, Dutch-speaking: 70.9

All countries: 65.5

Mean age (years)

Female patients

- Spain, Cantabria: 58.1
- UK, Scotland: 58.6
- Norway: 58.9
- Iceland: 59.4
- Estonia: 59.7
- Finland: 59.9
- Spain, Basque country: 60.6
- UK, England: 61.2
- Switzerland: 62.1
- Denmark: 62.7
- Spain, Community of Madrid: 62.8
- Sweden: 62.9
- Bosnia and Herzegovina: 62.9
- Spain, Region of Murcia: 63.1
- Spain, Aragon: 63.1
- UK, Northern Ireland: 63.2
- the Netherlands: 63.3
- Romania: 63.4
- Serbia: 63.5
- UK, Wales: 63.9
- Spain, Andalusia: 64.0
- Austria: 64.5
- Spain, Valencian region: 64.9
- Spain, Navarre: 65.4
- Spain, Asturias: 65.9
- Spain, Catalonia: 66.0
- Spain, Extremadura: 66.7
- Belgium, French-speaking: 66.9
- Spain, Castile and Leon: 67.4
- France: 67.5
- Spain, Galicia: 67.7
- Spain, Castile-La Mancha: 68.3
- Belgium, Dutch-speaking: 71.4
- Greece: 71.8

All countries: 65.0

Mean age (years)
Incident patients accepted for RRT in 2016, at day 1
by age category

Incidence by age category
for all registries

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Incidence (per million age-related population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75+</td>
<td>357.7</td>
</tr>
<tr>
<td>65-74</td>
<td>304.2</td>
</tr>
<tr>
<td>45-64</td>
<td>142.2</td>
</tr>
<tr>
<td>20-44</td>
<td>41.3</td>
</tr>
<tr>
<td>0-19</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Incidence by age category
by type of data provided by registry

<table>
<thead>
<tr>
<th>Age Category</th>
<th>All countries</th>
<th>Individual data</th>
<th>Aggregated data</th>
</tr>
</thead>
<tbody>
<tr>
<td>75+</td>
<td>27</td>
<td>25</td>
<td>13</td>
</tr>
<tr>
<td>65-74</td>
<td>31</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>45-64</td>
<td>23</td>
<td>38</td>
<td>16</td>
</tr>
<tr>
<td>20-44</td>
<td>34</td>
<td>31</td>
<td>1</td>
</tr>
<tr>
<td>0-19</td>
<td>13</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>
Incident patients accepted for RRT in 2016, at day 1
by gender

Incidence by gender
for all registries

- Women: 82.8
- Men: 143.3

Incidence by gender
by type of data provided by registry
- All countries: 38% Women, 62% Men
- Individual data: 36% Women, 64% Men
- Aggregated data: 40% Women, 60% Men
### Incident patients accepted for RRT in 2016, at day 1
by primary renal disease

#### Incidence by primary renal disease
for all registries

<table>
<thead>
<tr>
<th>Disease</th>
<th>Incidence (per million population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown/missing</td>
<td>14.4</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>17.6</td>
</tr>
<tr>
<td>Renal vascular disease</td>
<td>2.3</td>
</tr>
<tr>
<td>Hypertension</td>
<td>15.4</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>26.2</td>
</tr>
<tr>
<td>Polycystic kidneys, adult type</td>
<td>6.8</td>
</tr>
<tr>
<td>Pyelonephritis</td>
<td>6.8</td>
</tr>
<tr>
<td>Glomerulonephritis/sclerosis</td>
<td>17.0</td>
</tr>
</tbody>
</table>

#### Incidence by primary renal disease
by type of data provided by registry

<table>
<thead>
<tr>
<th>Disease</th>
<th>All countries</th>
<th>Individual data</th>
<th>Aggregated data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown/missing</td>
<td>20</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>13</td>
<td>17</td>
<td>12</td>
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<tr>
<td>Renal vascular disease</td>
<td>2</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Hypertension</td>
<td>13</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Polycystic kidneys, adult type</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Pyelonephritis</td>
<td>6</td>
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<td>6</td>
</tr>
<tr>
<td>Glomerulonephritis/sclerosis</td>
<td>15</td>
<td>5</td>
<td>19</td>
</tr>
</tbody>
</table>
Incident patients accepted for RRT in 2016, at day 1
by primary renal disease and age category

Incidence by primary renal disease
patients from registries providing individual patient data only

- **All patients**
  - Glomerulonephritis/sclerosis, 12%
  - Pyelonephritis, 5%
  - Polycystic kidneys, adult type, 6%
  - Diabetes mellitus, 23%
  - Hypertension, 15%
  - Renal vascular disease, 2%
  - Miscellaneous, 17%
  - Unknown/missing, 21%

- **Patients younger than 65 years of age at the start of RRT**
  - Miscellaneous, 18%
  - GN, 17%
  - Unkn/miss, 19%
  - HT, 8%
  - DM, 22%
  - RVD, 1%

- **Patients aged 65 years or older at the start of RRT**
  - DM, 23%
  - HT, 19%
  - Miscellaneous, 17%
  - PN, 5%
  - PKD, 3%
  - GN, 8%
Incident patients accepted for RRT in 2016, at day 91 by established modality

Incidence at day 91 by established modality for all registries

- Haemodialysis: 99.6
- Peritoneal dialysis: 16.0
- Transplant: 6.2
- Unknown/missing: 0.0

Incidence at day 91 by established modality by type of data provided by registry

- All countries: 84%
- Individual data: 82%
- Aggregated data: 86%
Incident patients accepted for RRT in 2016, at day 91
by established modality and age category

Incidence at day 91 by established modality
patients from registries providing individual patient data only

- **all patients**
  - Transplant, 6%
  - Peritoneal dialysis, 15%
  - Haemodialysis, 79%

- **patients younger than 65 years of age at the start of RRT**
  - Transplant, 11%
  - Peritoneal dialysis, 17%
  - Haemodialysis, 72%

- **patients aged 65 years or older at the start of RRT**
  - Peritoneal dialysis, 13%
  - Transplant, 2%
  - Haemodialysis, 85%
Incident patients accepted for RRT, at day 1
last 20 years (1997-2016)

Unadjusted incidence over time
all patients starting RRT

Adjusted incidence over time
all patients starting RRT
Incident patients accepted for RRT, at day 1
last 15 years (2002-2016)

Unadjusted incidence over time
all patients starting RRT

Adjusted incidence over time
all patients starting RRT
Incident patients accepted for RRT, at day 1
last 10 years (2007-2016)

Unadjusted incidence over time
all patients starting RRT

Adjusted incidence over time
all patients starting RRT
Incident patients accepted for RRT, at day 1
last 5 years (2012-2016)

Unadjusted incidence over time
all patients starting RRT

Adjusted incidence over time
all patients starting RRT
Prevalent patients on RRT in 2016 by country

- <750 pmp
- 750-999 pmp
- 1000-1499 pmp
- ≥ 1500 pmp
- No data available
Prevalent patients on RRT in 2016
by country

Unadjusted prevalence
renal registries providing individual patient data

- Serbia: 543
- Iceland: 668
- Estonia: 698
- Bosnia and Herzegovina: 759
- Finland: 885
- Switzerland: 896
- UK, Scotland: 930
- Denmark: 939
- Norway: 950
- UK, England: 952
- UK, Northern Ireland: 958
- Sweden: 979
- UK, Wales: 984
- the Netherlands: 1047
- Romania: 1048
- Austria: 1080
- Spain, Community of Madrid: 1152
- Spain, Castile-La Mancha: 1153
- Spain, Extremadura: 1161
- Spain, Castile and Leon: 1169
- Spain, Cantabria: 1179
- Spain, Andalusia: 1192
- Spain, Aragon: 1205
- Spain, Basque country: 1249
- Belgium, Dutch-speaking: 1269
- Spain, Asturias: 1273
- France: 1278
- Greece: 1284
- Belgium, French-speaking: 1310
- Spain, Navarre: 1310
- Spain, Region of Murcia: 1331
- Spain, Galicia: 1333
- Spain, Valencian region: 1338
- Spain, Catalonia: 1399
- All countries: 1104

Unadjusted prevalence
renal registries providing aggregated data

- Ukraine: 188
- Belarus: 289
- Russia: 310
- Albania: 507
- Bulgaria: 610
- Slovakia: 620
- Latvia: 665
- Lithuania: 713
- Israel: 759
- Tunisia, Sfax region: 768
- Poland: 780
- Macedonia: 812
- Turkey: 823
- Croatia: 933
- Czech Republic: 1041
- Italy (6 of 20 regions): 1098
- Spain (All): 1149
- Portugal: 1234
- All countries: 1906
Prevalent patients on RRT in 2016
by country
adjusted for age and gender

Adjusted prevalence
renal registries providing individual patient data

Prevalence (per million population)

All countries: 1079

Adjusted prevalence
renal registries providing aggregated data

Prevalence (per million population)

All countries: 607
Prevalent patients on RRT in 2016

Mean age on 31 December 2016
renal registries providing individual patient data

Mean age on 31 December 2016
renal registries providing aggregated data
Prevalent patients on RRT in 2016
for registries providing individual patient data only

<table>
<thead>
<tr>
<th>Male Patients</th>
<th>Female Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iceland</td>
<td>Iceland</td>
</tr>
<tr>
<td>UK, Scotland</td>
<td>UK, Scotland</td>
</tr>
<tr>
<td>Estonia</td>
<td>Estonia</td>
</tr>
<tr>
<td>Denmark</td>
<td>Denmark</td>
</tr>
<tr>
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<td>Spain, Castile and León</td>
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<td>Belgium, French-speaking</td>
<td>Belgium, French-speaking</td>
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<tr>
<td>Belgium, Dutch-speaking</td>
<td>Belgium, Dutch-speaking</td>
</tr>
</tbody>
</table>

Mean age on 31 December 2016

- Male patients: All countries mean age 61.5 years
- Female patients: All countries mean age 61.4 years
Prevalent patients on RRT in 2016
by age category

Prevalence by age category
for all registries

Prevalence (per million age-related population)

- 75+: 2039
- 65-74: 2098
- 45-64: 1197
- 20-44: 364
- 0-19: 31

Prevalence by age category
by type of data provided by registry

- All countries: 16%
- Individual data: 15%
- Aggregated data: 18%

- 75+: 19%
- 65-74: 23%
- 45-64: 24%
- 20-44: 42%
Prevalent patients on RRT in 2016
by gender

Prevalence by gender
for all registries

Women: 622
Men: 981

Prevalence by gender
by type of data provided by registry

- All countries: 40% (Women), 60% (Men)
- Individual data: 38% (Women), 62% (Men)
- Aggregated data: 41% (Women), 59% (Men)
Prevalent patients on RRT in 2016
by primary renal disease

Prevalence by primary renal disease
for all registries

- Unknown/missing: 14.4
- Miscellaneous: 17.6
- Renal vascular disease: 2.3
- Hypertension: 15.4
- Diabetes mellitus: 26.2
- Polycystic kidneys, adult type: 6.8
- Pyelonephritis: 6.8
- Glomerulonephritis/sclerosis: 17.0

Prevalence by primary renal disease
by type of data provided by registry

- Unknown/missing
  - All countries: 20
  - Individual data: 15
  - Aggregated data: 19
- Miscellaneous
  - All countries: 17
  - Individual data: 17
  - Aggregated data: 12
- Renal vascular disease
  - All countries: 3
  - Individual data: 2
  - Aggregated data: 2
- Hypertension
  - All countries: 13
  - Individual data: 15
  - Aggregated data: 12
- Diabetes mellitus
  - All countries: 23
  - Individual data: 23
  - Aggregated data: 23
- Polycystic kidneys, adult type
  - All countries: 6
  - Individual data: 6
  - Aggregated data: 7
- Pyelonephritis
  - All countries: 6
  - Individual data: 5
  - Aggregated data: 7
- Glomerulonephritis/sclerosis
  - All countries: 15
  - Individual data: 12
  - Aggregated data: 19
Prevalent patients on RRT in 2016
by primary renal disease and age category

Prevalence by primary renal disease
patients from registries providing individual patient data only

all patients
- Glomerulonephritis/sclerosis, 20%
- Miscellaneous, 17%
- Pyelonephritis, 8%
- Diabetes mellitus, 16%
- Polycystic kidneys, adult type, 9%
- Renal vascular disease, 2%
- Hypertension, 11%

patients younger than 65 years of age
- Unkn/miss, 15%
- GN, 25%
- Miscellaneous, 19%
- PN, 10%
- PKD, 8%
- DM, 19%
- RVD, 1%
- HT, 7%

patients aged 65 years or older
- Unkn/miss, 18%
- GN, 14%
- PN, 6%
- PKD, 8%
- DM, 19%
- RVD, 3%
- HT, 16%
Prevalent patients on RRT in 2016

by modality

Prevalence by modality

for all registries

- Haemodialysis: 476
- Peritoneal dialysis: 41
- Transplant: 306
- Unknown / missing: 1

Prevalence by modality

by type of data provided by registry

- All countries:
  - Unkn: 58
  - Tx: 48
  - PD: 65
  - HD: 85

- Individual data:
  - Unkn: 5
  - Tx: 5

- Aggregated data:
  - Unkn: 5
Prevalent patients on RRT in 2016
by modality and age category

Prevalence by modality
patients from registries providing individual patient data only

- all patients
  - Transplant: 46%
  - Haemodialysis: 48%
  - Peritoneal dialysis: 5%

- patients younger than 65 years of age
  - Transplant: 60%
  - Haemodialysis: 35%
  - Peritoneal dialysis: 6%

- patients aged 65 years or older
  - Transplant: 30%
  - Haemodialysis: 64%
  - Peritoneal dialysis: 4%
Prevalent patients on RRT
last 20 years (1997-2016)

Unadjusted prevalence over time
all patients on RRT

Adjusted prevalence over time
all patients on RRT

Graphs showing the prevalence of patients on RRT over the past 20 years, both unadjusted and adjusted, with a trend line indicating an increase from 1996 to 2016.
Prevalent patients on RRT
last 15 years (2002-2016)

Unadjusted prevalence over time
all patients on RRT

Adjusted prevalence over time
all patients on RRT

Prevalence (per million population)

2001 2003 2005 2007 2009 2011 2013 2015 2017

Prevalence (per million population)

2001 2003 2005 2007 2009 2011 2013 2015 2017
Prevalent patients on RRT
last 10 years (2007-2016)

Unadjusted prevalence over time
all patients on RRT

Adjusted prevalence over time
all patients on RRT
Prevalent patients on RRT
last 5 years (2012-2016)

Unadjusted prevalence over time
all patients on RRT

Adjusted prevalence over time
all patients on RRT

Graphs showing the prevalence over time for unadjusted and adjusted prevalences for all patients on RRT from 2011 to 2017.
Renal transplants performed in 2016 by country

Renal transplants performed
renal registries providing aggregated data

- Ukraine: 3
- Macedonia: 5
- Bulgaria: 6
- Albania: 7
- Tunisia, Sfax region: 7
- Georgia: 7
- Russia: 8
- Cyprus: 9
- Slovakia: 9
- Poland: 9
- Belarus: 10
- Latvia: 10
- Lithuania: 10
- Italy (6 of 20 regions): 22
- Turkey: 26
- Czech Republic: 27
- Israel: 29
- Croatia: 34
- Portugal: 38
- Spain (All): 43
- Czech Republic: 45
- Croatia: 45
- Portugal: 48
- Spain (All): 64

Renal transplants performed (per million population)

- All countries: 46
Renal transplants performed in 2016
transplants from deceased donors by country

- Deceased donor transplant rate
  renal registries providing individual patient data

- Deceased donor transplant rate
  renal registries providing aggregated data
Renal transplants performed in 2016
transplants from living donors
by country

Living donor transplant rate
renal registries providing individual patient data

<table>
<thead>
<tr>
<th>Country</th>
<th>Transplants per million population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Romania</td>
<td>1</td>
</tr>
<tr>
<td>Spain, Castile-La Mancha</td>
<td>2</td>
</tr>
<tr>
<td>Serbia</td>
<td>3</td>
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<tr>
<td>Spain, Extremadura</td>
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<td>Estonia</td>
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<tr>
<td>Belgium, Dutch-speaking</td>
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<tr>
<td>Spain, Valencian region</td>
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<tr>
<td>Spain, Cantabria</td>
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<tr>
<td>Bosnia and Herzegovina</td>
<td>4</td>
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<tr>
<td>Finland</td>
<td>4</td>
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<tr>
<td>Spain, Community of Madrid</td>
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<tr>
<td>Greece</td>
<td>5</td>
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<tr>
<td>Belgium, French-speaking</td>
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<tr>
<td>Spain, Andalusia</td>
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<td>Spain, Asturias</td>
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<td>Spain, Region of Murcia</td>
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<td>Spain, Aragon</td>
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<td>France</td>
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<td>Norway</td>
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<td>UK, Wales</td>
<td>9</td>
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<tr>
<td>Spain, Basque country</td>
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<td>Spain, Navarre</td>
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<td>Spain, Galicia</td>
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<tr>
<td>UK, England</td>
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<td>UK, Scotland</td>
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<td>Iceland</td>
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<td>Spain, Catalonia</td>
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<tr>
<td>Denmark</td>
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<tr>
<td>the Netherlands</td>
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<tr>
<td>UK, Northern Ireland</td>
<td>38</td>
</tr>
<tr>
<td>All countries</td>
<td>10</td>
</tr>
</tbody>
</table>

Living donor transplant rate
renal registries providing aggregated data

<table>
<thead>
<tr>
<th>Country</th>
<th>Transplants per million population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belarus</td>
<td>1</td>
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<tr>
<td>Poland</td>
<td>1</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1</td>
</tr>
<tr>
<td>Russia</td>
<td>2</td>
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<td>Croatia</td>
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<td>Croatia</td>
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<tr>
<td>Lithuania</td>
<td>2</td>
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<tr>
<td>Ukraine</td>
<td>2</td>
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<tr>
<td>Italy (6 of 20 regions)</td>
<td>3</td>
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<tr>
<td>Macedonia</td>
<td>3</td>
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<td>Slovakia</td>
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<tr>
<td>Czech Republic</td>
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<tr>
<td>Tunisia, Sfax region</td>
<td>5</td>
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<tr>
<td>Albania</td>
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<td>Latvia</td>
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<td>Portugal</td>
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<td>Georgia</td>
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<td>Spain (All)</td>
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<td>Cyprus</td>
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<td>Israel</td>
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<td>Turkey</td>
<td>33</td>
</tr>
<tr>
<td>All countries</td>
<td>9</td>
</tr>
</tbody>
</table>

Renal transplants (per million population)
Renal transplants performed in 2016
by donor type

Renal transplants by donor type
for all registries

- Unknown donor: 0.2
- Deceased donor: 22.5
- Living donor: 9.5

Renal transplants by donor type
by type of data provided by registry

- All countries:
  - Unknown: 1
  - Deceased: 70
  - Living: 30

- Individual data:
  - Unknown: 1
  - Deceased: 76
  - Living: 22

- Aggregated data:
  - Unknown: 0
  - Deceased: 66
  - Living: 33
Renal transplants performed in 2016
by donor type

Renal transplants by donor type
patients from registries providing individual patient data only

- All patients:
  - Donor type unknown: 2%
  - Living donor: 23%
  - Deceased donor: 75%

- Patients younger than 65 years of age on transplantation:
  - Donor type unknown: 2%
  - Living donor: 25%
  - Deceased donor: 73%

- Patients aged 65 years or older on transplantation:
  - Donor type unknown: 2%
  - Living donor: 15%
  - Deceased donor: 83%
Adjusted patient survival by primary renal disease
Incident RRT patients
from day 1, adjusted for age and gender

Survival probability (%)

Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Adjusted patient survival by modality
Incident dialysis patients
from day 91, adjusted for age, gender, and primary renal disease

Survival probability (%)

Years since day 91 on dialysis

Haemodialysis
Peritoneal dialysis

Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Adjusted patient survival by donor type
Patients receiving a first kidney transplant
from day of transplant, adjusted for age, gender, and primary renal disease

Survival probability

from 0 to 5 years since kidney transplantation

- Living donor
- Deceased donor

Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension / renal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Survival probability cohort 2007-2011 by modality

Adjusted cumulative incidence of death and receiving a kidney transplant: Incident dialysis patients from day 1, adjusted for age, gender and primary renal disease

- Death (15.4%)
- Remaining on dialysis (38.1%)
- Transplanted (46.5%)

Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).

Fine and Gray competing risk method was used to examine dialysis survival.
Patient survival on RRT by cohort

Patient survival incident RRT patients

adjusted for age, gender and cause of renal failure

Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension/renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Patient survival on RRT by cohort

Patient survival incident RRT patients

adjusted for age, gender and cause of renal failure

Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Patient survival
incident dialysis patients
adjusted for age, gender and cause of renal failure

Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Patient survival
incident dialysis patients
adjusted for age, gender and cause of renal failure

Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Patient survival after first kidney transplantation

adjusted for age, gender and cause of renal failure

Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension/reintestinal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Patient survival after kidney transplantation
deep data

Patient survival after first kidney transplantation
adjusted for age, gender and cause of renal failure

Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension / renal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Graft survival after kidney transplantation
by cohort

Graft survival after first kidney transplantation
adjusted for age, gender and cause of renal failure

Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension / renal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.
Graft survival after kidney transplantation
by cohort

Graft survival after first kidney transplantation
adjusted for age, gender and cause of renal failure

Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension / renal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).

Cox regression model was used to calculate survival probabilities.