Is Europe doing better in cancer care since the 90th?

The latest findings from the EUROCARE-5 study

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• 31 countries (117 registries, 20 national)

• Increased coverage in countries with regional registries

• 50% European population

• Overall >20 million cancer cases

• Adult patients (age 15+)

• 45 major cancer sites

• Diagnosis 1999-2007

• Follow-up 2008 or later

• Uniform data collection protocol and statistical analyses
• 13 scientific articles
• Country-specific survival
• Adult patients (age 15+)
• Survival by cancer site or system
• Analyses by subsite, tumour morphology, stage
• Time trends incidence and survival
• Statistical methodology
Cancer survival time trends in Europe 2000-2007
5-year relative survival (%)

- Prostate: 8.3% (2005-07) vs 73.4% (1999-01), 81.7% overall
- Non Hodgkin lymphoma: 6.6% (2005-07) vs 53.8% (1999-01), 60.4% overall
- Rectum: 5.5% vs 52.1% (2005-07) vs 57.6% (1999-01), 60.5% overall
- Kidney: 4.1% vs 56.4% (2005-07) vs 60.5% (1999-01), 60.5% overall
- Breast: 4.0% vs 78.4% (2005-07) vs 73.4% (1999-01), 82.4% overall
- Colon: 3.8% vs 54.2% (2005-07) vs 58.1% (1999-01), 58.1% overall
Between country differences in cancer survival 2000-2007
Non Hodgkin lymphoma
5-year relative survival 2000-07 by country and region

Northern Europe
- Denmark, Finland, Iceland, Norway, Sweden, Ireland, UK, England, UK, Northern Ireland, UK, Scotland, UK, Wales
- Average survival: 63.3%

Ireland and UK
- Austria, Belgium, France, Germany, Switzerland, The Netherlands
- Average survival: 57.4%

Central Europe
- Croatia, Italy, Malta, Portugal, Slovenia, Spain, Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia
- Average survival: 62.5%

Southern Europe
- Average survival: 58.7%

Eastern Europe
- Average survival: 49.7%
Haematological malignancies
Time trends in age-standardised 5-year relative survival

- Hodgkin's lymphoma: 79
- Follicular lymphoma: 74
- Chronic lymphocytic leukaemia/small lymphocytic lymphoma: 69
- Diffuse Large B-cell lymphoma: 55
- Chronic myeloid leukaemia: 54
- Multiple myeloma: 40

Data from 1997-99 to 2006-08
Rectal cancer
5-year relative survival 2000-07 by country and region

- Northern Europe: 59.5%
- Ireland and UK: 53.7%
- Central Europe: 60.1%
- Southern Europe: 55.4%
- Eastern Europe: 44.6%
Breast cancer
Survival time trends in age-standardised 10-year relative survival

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Northern Europe</td>
<td>74</td>
<td>76 (+2)</td>
</tr>
<tr>
<td>Ireland and UK</td>
<td>68</td>
<td>71 (+3)</td>
</tr>
<tr>
<td>Central Europe</td>
<td>72</td>
<td>75 (+3)</td>
</tr>
<tr>
<td>Southern Europe</td>
<td>73</td>
<td>74 (+2)</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>61</td>
<td>65 (+4)</td>
</tr>
<tr>
<td>Europe</td>
<td>70</td>
<td>73 (+3)</td>
</tr>
</tbody>
</table>
Melanoma of the skin
5-year relative survival 2000-07 by country and region

- Northern Europe
  - Denmark: 87.7
  - Finland: 83.2
  - Iceland: 85.6
  - Norway: 87.6
  - Sweden: 87.6
  - Ireland: 87.6

- Ireland and UK
  - UK, England: 85.6
  - UK, Northern Ireland: 87.7
  - UK, Scotland: 87.6
  - UK, Wales: 82.6

- Central Europe
  - Austria: 87.6
  - Belgium: 85.6
  - France: 82.6
  - Germany: 87.6

- Southern Europe
  - Switzerland: 83.2
  - The Netherlands: 82.6
  - Croatia: 74.3
  - Italy: 74.3
  - Malta: 74.3
  - Portugal: 74.3
  - Slovenia: 74.3
  - Spain: 74.3

- Eastern Europe
  - Bulgaria: 74.3
  - Czech Republic: 74.3
  - Estonia: 74.3
  - Latvia: 74.3
  - Lithuania: 74.3
  - Poland: 74.3
  - Slovakia: 74.3
Melanoma of the skin
5-year age-standardised relative survival by morphology

<table>
<thead>
<tr>
<th>Morphology</th>
<th>Survival Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lentigo_maligna</td>
<td>98.6</td>
</tr>
<tr>
<td>Superficial_spread</td>
<td>94.7</td>
</tr>
<tr>
<td>In_nevo</td>
<td>89.5</td>
</tr>
<tr>
<td>NOS</td>
<td>80.2</td>
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<tr>
<td>Epitelial</td>
<td>77.8</td>
</tr>
<tr>
<td>Nodular</td>
<td>72.9</td>
</tr>
<tr>
<td>Non_pigment</td>
<td>57.2</td>
</tr>
</tbody>
</table>

242,067 patients diagnosed in 1999-2007, FOLLOWED UP TO 2008
116 EUROCARE REGISTRIES
Stomach cancer
5-year relative survival by subsite and region

Northern Europe
- Distal: 29%
- Proximal: 14%

Ireland and UK
- Distal: 23%
- Proximal: 14%

Central Europe
- Distal: 36%
- Proximal: 18%

Southern Europe
- Distal: 36%
- Proximal: 20%

Eastern Europe
- Distal: 24%
- Proximal: 13%

Europe
- Distal stomach: 30.5%
  (antrum, pylorus, lesser curvature)
- Proximal stomach: 16.0%
  (cardias, fundus, lesser curvature)
Prostate cancer
Incidence and survival correlation
All cancer cases diagnosed in 2000-2007
Average Total National Expenditure on Health (TNEH) and 5-year relative survival tertiles

<table>
<thead>
<tr>
<th>Average TNEH per capite $ Purchasing Power Parity 2000-07</th>
</tr>
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<tr>
<td>$-</td>
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<tr>
<td>[39%-49%)</td>
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<td>[49%-55%)</td>
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<td>[55%-58%)</td>
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5-y relative survival tertiles for all cancer cases diagnosed in 2000-07

$R^2$ log-linear regression 73%
EUROCARE -5 KEY MESSAGES

Improvements in cancer survival over time, but persisting variations across countries and regions point inequalities in cancer care

Related to:

- differences in cancer biology (stomach, head & neck)
- diagnostic intensity and screening, leading to earlier stage at diagnosis (breast, colorectal, prostate)
- effective treatments (NHL and CML)
- socioeconomic status, lifestyle and general health differences between populations

Further investigations needed on:

- tumour characterisation
- co-morbidity and its influence on the prognosis
- survivorship
- cancer costs and organization of care
To help reduce survival inequalities & improve cancer care

• Reduction in the fragmentation of care services
• Promotion of comprehensive multidisciplinary cancer care centres
• Better organisation and funding of health care systems
• Promotion and funding outcome research
• Alliance between patients, physicians and researchers
Research based on population-based disease registries, shall not be impeded by the proposal on the General Data Protection Regulation

exemption from patient consent is necessary, to permit the collection of complete, accurate, high quality data needed to develop evidence-based policy decisions and measure their effectiveness.