Survivorship Issues and Lifestyle Interventions

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Dutch AYA ‘Young & Cancer’ Platform
The Netherlands
Organization of cancer care

- 17 million inhabitants
- 80 hospitals
- 8 university medical centers
- 1 center for children oncology
Cancer incidence

550 children/year

2700 AYA/year

110,000 adults/year
Dutch AYA ‘Young & Cancer’ Platform

AYA care in 2018

Region North/West
Region South/West
Region Middle
Region North/East
Region Middle/East
Region South/East
AYA in the Netherlands

- Diagnosis cancer 18-35 yrs
- 2700 new patients/yr
- 75% cures
- Long-term survivors
Cancer (survivorship) issues

ME and my ...

- diet & nutrition
- work, reintegration & government benefits
- late effects
- appearance
- disease & treatments
- fertility
- sports & activities
- mortgages & insurance
- emotions
- spirituality
- family & children
- follow-up
- relationships & sexuality
- school & study
- death
Lifestyle issues

• AYA with cancer → increased risk for late effects
  - Cardiovascular disease, diabetes, depression

• Suboptimal health behaviour further increases these risks

• Unhealthy lifestyle:
  • Poor diet
  • Physical activity ↓
  • Substance abuse
Case - Amy 27 year

• At age 25 yr Hodgkin lymphoma: chemotherapy (incl dexamethasone) and radiotherapy
• Representative job in a big company
• Weight gain 10 kg during treatment
• Not succeeding in losing weight
• No sports/physical activity
• Ashamed, not self-confident
• People say that she should be grateful because she is cured…. 
Diet

• Most AYA survivors consume 10% more energy than they expend daily
  - Increased fat
  - Low fruit and vegetable intake

• > 1/3 overweight by end of treatment

• High BMI, elevated triglycerides, low LDL etc
# Physical activity & substance abuse

## Percentage (95% CI)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Survivors of Adolescent and Young Adult Cancer Diagnosed at Ages 15 to 29 Years</th>
<th>Respondents Without a History of Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk behaviors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current smoker</td>
<td>25.9 (23-28.9)</td>
<td>17.9 (17.6-18.1)</td>
</tr>
<tr>
<td>Binge drinker</td>
<td>13.8 (11.1-17)</td>
<td>15.1 (14.8-15.3)</td>
</tr>
<tr>
<td>Obese: BMI ≥30 kg/m²</td>
<td>30.8 (27.2-34.7)</td>
<td>26.7 (26.4-27)</td>
</tr>
<tr>
<td>No leisure-time physical activity in past mo</td>
<td>30.5 (27.2-33.9)</td>
<td>24.3 (24-24.6)</td>
</tr>
<tr>
<td>&lt;5 Servings of fruits/vegetables</td>
<td>78.7 (76.1-81.2)</td>
<td>76.3 (76-76.6)</td>
</tr>
</tbody>
</table>

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Tai 2012 Cancer
Lifestyle issues

• Addressing unhealthy lifestyle and fostering health-promoting behavior is important for **risk reduction**

• But challenging!
  - Lack of motivation to change
  - Not acknowledging consequences of unhealthy behavior
  - Treatment-related factors like fatigue may be a barrier

• Should be implemented in long-term follow up care
Lifestyle interventions

• Individual level
  - Oncology nurses -> education
  - Physicians
  - Dietician/physiotherapist

• Group based (weight management and exercise programs)

• Web based/social media promising
Table 5. Proposed application of intervention elements that could enhance cancer survivorship care based on findings from this review (health-related recommendations).

<table>
<thead>
<tr>
<th>Elements of Web-based intervention</th>
<th>Recommendations for survivorship care</th>
<th>Health promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Rehabilitation</td>
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<tr>
<td></td>
<td>Information about the importance of and possibilities for rehabilitation</td>
<td></td>
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<tr>
<td></td>
<td>Psychosocial support</td>
<td></td>
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<tr>
<td></td>
<td>Information about possible psychosocial problems and possibilities to solve them</td>
<td></td>
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<tr>
<td>Self-monitoring</td>
<td>Health promotion</td>
<td></td>
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<tr>
<td></td>
<td>Upload of relevant data such as food intake and exercise behavior</td>
<td></td>
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<tr>
<td>Feedback/Tailored information</td>
<td>Rehabilitation advice based on self-monitoring data</td>
<td></td>
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<tr>
<td></td>
<td>Advice for dealing with psychosocial problems as identified with questionnaires; following the stepped care principle</td>
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<tr>
<td>Self-management training</td>
<td>Rehabilitation</td>
<td></td>
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<tr>
<td></td>
<td>Training to learn to sustain doing rehabilitation exercises</td>
<td></td>
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<tr>
<td></td>
<td>Training aimed at coping with psychosocial problems like anger, fear or frustration</td>
<td></td>
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<tr>
<td>Personal exercise program</td>
<td>Rehabilitation</td>
<td></td>
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<tr>
<td></td>
<td>Individual exercise advice aimed at rehabilitation, taking into account a survivor’s specific needs and preferences</td>
<td></td>
</tr>
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<td></td>
<td>Individual exercise advice, taking into account a survivor’s specific needs and preferences</td>
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<tr>
<td>Communication with health care provider</td>
<td>Possibility to ask questions about rehabilitation</td>
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<tr>
<td></td>
<td>Possibility to ask questions about psychosocial problems; receiving support</td>
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<tr>
<td>Communication with fellow patients</td>
<td>Possibility to ask questions about exercise advice</td>
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<tr>
<td></td>
<td>Share experiences and tips about rehabilitation</td>
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<tr>
<td></td>
<td>Share experiences and tips about dealing with psychosocial problems</td>
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<td>Share experiences and tips about health behavior</td>
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<td></td>
<td>Provide support</td>
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</tbody>
</table>
Online community

www.aya4net.nl
Long term follow-up

• Essential for prevention, early diagnosis and optimal management of late effects

• How should we integrate the age-specific psychosocial care in:
  - current guidelines
  - organization of care
ME and my ...
Conclusion

• Lifestyle is important during and after cancer treatment

• Advice your patients: do not smoke, physical activity, healthy food, prevent overweight, careful with sun-exposure and alcohol

• Individual, group-based, web-based interventions: combination -> research topic