**Supplement**

**eTable 1. Guideline used (Cocks K. et al. J Clin Oncol 29:89-96, 2011) for the interpretation of trivial, small, medium and large effects for mean differences of the EORTC QLQ-C30 questionnaire**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subscale, mean difference** | **Trivial** | **Small** | **Medium** | **Large** |
| Physical functioning | 0-5 | 5-14 | 14-22 | >22 |
| Role functioning | 0-6 | 6-19 | 19-29 | >29 |
| Cognitive functioning | 0-3 | 3-9 | 9-14 | >14 |
| Social functioning | 0-5 | 5-11 | 11-15 | >15 |
| Global quality of life | 0-4 | 4-10 | 10-15 | >15 |
| Fatigue | 0-5 | 5-13 | 13-19 | >19 |
| Nausea/vomiting | 0-3 | 3-8 | 8-15 | >15 |
| Pain | 0-6 | 6-13 | 13-19 | >19 |
| Dyspnoea | 0-3 | 4-9 | 9-15 | >15 |
| Insomnia | 0-4 | 4-13 | 13-24 | >24 |
| Appetite loss | 0-5 | 5-14 | 14-23 | >23 |
| Constipation | 0-5 | 5-13 | 13-19 | >19 |
| Diarrhoea | 0-3 | 3-7 | >7 | - |
| Financial impact | 0-3 | 3-10 | >10 | - |
| Abbreviation: EORTC QLQ-C30, European Organization for Research and Treatment of Cancer quality of life questionnaire-C30 | | | | |

**eTable 2. Differences in Mean EORTC QLQ-C30 scores between survivors without and with >= 2 comorbidities**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Survivor**  **without comorbidities**  **(n=35)** | **Survivors**  **with >= 2 comorbidities**  **(n=26)** | **Unstandardized difference** | **p-value** |
| **Functioning scales: mean (SD)** | |  |  |  |  |
|  | Physical functioning | 90.7 (18) | 74.6 (20) | -16.1 | .0001 |
|  | Emotional functioning | 86.9 (18) | 78.4 (25) | -8.5 | .12 |
|  | Role functioning, | 90 (20) | 74.4 (22) | -15.6 | .002 |
|  | Cognitive functioning, | 84.3 (23) | 82.7 (19) | -1.6 | .46 |
|  | Social functioning, | 88.6 (20) | 80 (22) | -8.4 | .05 |
|  | Global quality of life, | 86.7 (17) | 73.4 (18) | -13.3 | .002 |
| **Symptom scales: mean (SD)** | |  |  |  |  |
|  | Fatigue, | 16.8 (21) | 31.4 (20) | 14.6 | .005 |
|  | Nausea/vomiting, | .95 (4) | 1.9 (5) | .97 | .42 |
|  | Pain, | 8.1 (15) | 12.2 (19) | 4.1 | .42 |
|  | Dyspnoea, | 8.6 (22) | 18.7 (27)\* | 10.1 | .06 |
|  | Insomnia, | 11.4 (20) | 23.1 (31) | 11.7 | .12 |
|  | Appetite loss, | 0 (0) | 9.0 (20) | 9.0 | .007 |
|  | Constipation, | 3.8 (16) | 2.6 (9) | -1.3 | .81 |
|  | Diarrhoea, | 3.8 (11) | 14.1 (29) | 10.3 | .17 |
|  | Financial impact, | 12.4 (22) | 14.1 (25) | 1.7 | .86 |
| Abbreviation: EORTC QLQ-C30, European Organization for Research and Treatment of Cancer quality of life questionnaire-C30; SD, standard deviation  \*n=25 because of one missing value | | | | | |

**eTable 3. Differences in Mean EORTC QLQ-C30 scores between survivors without and with brain metastasis**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Survivors without brain metastasis**  **(n=76)** | **Survivors with brain metastasis**  **(n=13)** | **Unstandardized Difference** | **P-value** |
| **Functioning scales: mean (SD)** | |  |  |  |  |
|  | Physical functioning | 83.5 (19) | 85 (21) | 1.54 | .67 |
|  | Emotional functioning | 84.8 (21) | 83.9 (23) | -.86 | .91 |
|  | Role functioning | 84.0 (22) | 80.8 (21) | -3.22 | .49 |
|  | Cognitive functioning | 84.9 (20) | 76.9 (27) | -7.95 | .27 |
|  | Social functioning | 87.9 (20) | 78.2 (26) | -9.73 | .13 |
|  | Global quality of life | 81.1 (18) | 75.6 (21) | -5.49 | .27 |
| **Symptom scales: mean (SD)** | |  |  |  |  |
|  | Fatigue | 22.5 (23) | 25.6 (25) | 3.13 | .66 |
|  | Nausea/vomiting | 2.0 (6) | 2.6 (6) | .59 | .63 |
|  | Pain | 9.2 (17) | 11.5 (16) | 2.33 | .49 |
|  | Dyspnoea | 12.9 (25)\* | 15.4 (3) | 2.50 | .45 |
|  | Insomnia | 17.1 (26) | 20.5 (32) | 3.41 | .83 |
|  | Appetite loss | 6.1 (18) | 2.6 (9) | -3.58 | .63 |
|  | Constipation | 4.0 (13)\* | 0 (0) | -4 | .25 |
|  | Diarrhoea | 79.2 (20) | 0 (0) | -9.21 | .07 |
|  | Financial impact | 79.2 (21) | 18.0 (22) | 8.74 | .06 |
| Abbreviation:EORTC QLQ-C30, European Organization for Research and Treatment of Cancer quality of life questionnaire-C30; SD, standard deviation  \*n=75 because of one missing value | | | | | |

**eTable 4. Differences in Mean EORTC QLQ-C30 scores between survivors with a follow-up of < 36 months versus a follow-up >=36 months**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Survivor FU < 36 months**  **(n=40)** | **Survivors FU >=36 months**  **(n=49)** | **Unstandardized Difference** | **P-value** |
| **Functioning scales: mean (SD)** | | | | | |
|  | Physical functioning | 84.4 (18) | 83.1 (20) | -1.3 | .99 |
|  | Emotional functioning | 82.0 (20) | 86.9 (21) | 4.88 | .10 |
|  | Role functioning | 81.7 (22) | 85.0 (22) | 3.37 | .43 |
|  | Cognitive functioning | 82.1 (22) | 85.0 (20) | 2.95 | .68 |
|  | Social functioning | 80.8 (25) | 91.2 (17) | 10.32 | .03 |
|  | Global quality of life | 76.0 (21) | 83.8 (16) | 7.8 | .10 |
| **Symptom scales: mean (SD)** | | | | | |
|  | Fatigue | 26.8 (26) | 19.8 (21) | -6.96 | .25 |
|  | Nausea/vomiting | 3.3 (8) | 1.0 (4) | -2.31 | .09 |
|  | Pain | 11.7 (19) | 7.8 (15) | -3.84 | .29 |
|  | Dyspnoea | 12.0 (25)\* | 14.3 (25) | 2.32 | .57 |
|  | Insomnia | 18.3 (29) | 17 (25) | -1.33 | .90 |
|  | Appetite loss | 8.3 (20) | 3.4 (14) | -4.93 | .10 |
|  | Constipation | 45 (16) | 2.1 (8)† | -2.92 | .50 |
|  | Diarrhoea | 8.3 (21) | 7.5 (17) | -.85 | .95 |
|  | Financial impact | 5.8 (15) | 14.3 (25) | 8.45 | .07 |
| Abbreviation: EORTC QLQ-C30, European Organization for Research and Treatment of Cancer quality of life questionnaire-C30; FU, follow-up;  SD, standard deviation  \*n=39 because of one missing value  †n=48 because of one missing value | | | | | |

**eTable 5. Functional Assessment of Cancer Therapy-Melanoma Questionnaire (FACT-M) of the survivor population**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Survivors (n=88)** | | |  |  |  |  |  |
|  | Physical well-being: mean (SD) | 24.9(4) | | |  |  |  |  |  |
|  | Social well-being: mean (SD) | 21.1 (6) | | |  |  |  |  |  |
|  | Emotional well-being: mean (SD) | 19.9 (3) | | |  |  |  |  |  |
|  | Functional well-being: mean (SD) | 19.3 (5) | | |  |  |  |  |  |
|  | Melanoma subscale: mean (SD) | 54.8 (8) | | |  |  |  |  |  |
|  | FACT-Melanoma: mean (SD) | 139.9 (20) | | |  |  |  |  |  |
| **Melanoma subscale** | | **No** | **Mean** | **SD** | **Not at all**  **n (%)** | **A little bit**  **n (%)** | **Somewhat**  **n (%)** | **Quite a bit**  **n (%)** | **Very much n(%)** |
|  | I have pain at my melanoma site or surgical site | 87 | 3.5 | 0.9 | 63 (72) | 10 (12) | 10 (12) | 3 (3) | 1 (1) |
|  | I have noticed new changes in my skin (lumps, bumps, color(colour)) | 88 | 3.5 | 0.9 | 65 (74) | 11 (13) | 7 (8) | 4 (4) | 1 (1) |
|  | I worry about the appearance of surgical scars | 87 | 3.7 | 0.7 | 71 (82) | 8 (9) | 6 (7) | 2 (2) | 0 |
|  | I have been short of breath | 87 | 3.5 | 0.8 | 55 (63) | 22 (25) | 7 (8) | 3 (3) | 0 |
|  | I have to limit my physical activity because of my condition | 88 | 3.0 | 1.1 | 34 (39) | 28 (32) | 16 (18) | 8 (9) | 2 (2) |
|  | I get headaches | 87 | 3.4 | 1.0 | 54 (62) | 19 (22) | 7 (8) | 6 (7) | 1 (1) |
|  | I have had fevers (episodes of high body temperature) | 88 | 3.8 | 0.8 | 80 (91) | 3 (4) | 2 (2) | 1 (1) | 2 (2) |
|  | I have swelling or cramps in my stomach area | 88 | 3.7 | 0.7 | 73 (83) | 10 (11) | 2 (2) | 3 (4) | 0 |
|  | I have a good appetite | 88 | 3.0 | 0.8 | 1 (1) | 3 (3) | 16 (18) | 44 (50) | 24 (28) |
|  | I have aches and pains in my bones | 87 | 3.6 | 0.8 | 64 (73) | 14 (16) | 4 (5) | 5 (6) | 0 |
|  | I have noticed blood in my stool | 88 | 3.9 | 0.4 | 84 (96) | 1 (1) | 3 (3) | 0 | 0 |
|  | I have to limit my social activity because of my condition | 88 | 3.2 | 1.0 | 49 (56) | 17 (19) | 14 (16) | 8 (9) | 0 |
|  | I feel overwhelmed by my condition | 88 | 3.5 | 0.9 | 63 (71) | 13 (15) | 7 (8) | 5 (6) | 0 |
|  | I isolate myself from others because of my condition | 88 | 3.6 | 0.8 | 69 (79) | 6 (7) | 10 (11) | 3 (3) | 0 |
|  | I have difficulty thinking clearly (remembering, concentrating) | 88 | 3.1 | 1.0 | 39 (44) | 29 (33) | 13 (15) | 5 (6) | 2 (2) |
|  | I feel fatigued | 87 | 2.8 | 1.1 | 26 (30) | 33 (38) | 13 (15) | 14 (16) | 1(1) |
| **Melanoma surgery subscale** | |  |  |  |  |  |  |  |  |
|  | I have swelling at my melanoma site | 84 | 3.7 | 0.7 | 69 (83) | 11 (13) | 2 (2) | 1 (1) | 1(1) |
|  | I have swelling as a result of surgery | 85 | 3.7 | 0.7 | 69 (81) | 10 (12) | 4 (5) | 2 (2) | 0 |
|  | I am bothered by the amount of swelling | 85 | 3.7 | 0.7 | 68 (80) | 11 (13) | 4 (5) | 2 (2) | 0 |
|  | Movement of my swollen area is painful | 84 | 3.7 | 0.6 | 66 (79) | 13 (15) | 4 (5) | 1 (1) | 0 |
|  | Swelling keeps me from doing the things I want to do | 85 | 3.7 | 0.7 | 69 (81) | 9 (11) | 5 (6) | 2 (2) | 0 |
|  | Swelling keeps me from wearing clothes or shoes I want to wear | 85 | 3.7 | 0.7 | 72 (85) | 4 (5) | 7 (8) | 2 (2) | 0 |
|  | I feel numbness at my surgical site | 85 | 2.9 | 1.3 | 38 (45) | 20 (23) | 10 (12) | 12 (14) | 5 (6) |
|  | I have good range of movement in my arm or leg | 85 | 2.3 | 1.4 | 16 (19) | 7 (8) | 13 (15) | 33 (39) | 16 (19) |
| Abbreviations: FACT-M, Functional Assessment of Cancer Therapy-Melanoma Questionnaire | | | | | | | | | |

**eTable 6. Differences in Mean EORTC QLQ-C30 scores between survivors with and without clinical levels of anxiety (cutoff ≥ 8 HADS-A)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Survivors without Clinical levels of anxiety (n=73)** | **Survivor with Clinical levels of anxiety (n=16)** | **Unstandardized Difference** | **P-value** |
| **Functioning scales: mean (SD)** | | | | | |
|  | Physical functioning | 85 (19) | 77.9 (18) | -7.04 | .04 |
|  | Emotional functioning | 91.8 (11) | 52.5 (24) | -39.33 | <.0001 |
|  | Role functioning | 87.7 (20) | 64.6 (20) | -23.09 | .0001 |
|  | Cognitive functioning | 87.9 (16) | 64.6 (30) | -23.32 | .0012 |
|  | Social functioning | 90.9 (18) | 66.7 (24) | -24.20 | <.0001 |
|  | Global quality of life | 84.6 (15) | 60.9 (20) | -23.65 | <.0001 |
| **Symptom scales: mean (SD)** | | | | | |
|  | Fatigue | 17.2 (19) | 49.3 (22) | 32.11 | <.0001 |
|  | Nausea/vomiting | 1.8 (6) | 3.1 (7) | 1.29 | .31 |
|  | Pain | 8.7 (16) | 13.5 (19) | 4.87 | .32 |
|  | Dyspnoea | 10.1 (23) | 28.9 (28) | 18.84 | .0006 |
|  | Insomnia | 12.3 (22) | 41.7 (33)\* | 29.34 | .0001 |
|  | Appetite loss | 3.7 (13) | 14.6 (27) | 10.93 | .05 |
|  | Constipation | 3.2 (13)† | 4.2 (11) | 0.93 | .49 |
|  | Diarrhoea | 6.9 (18) | 12.5 (21) | 5.65 | .14 |
|  | Financial impact | 7.3 (16) | 25 (33) | 17.69 | .02 |
| Abbreviation: EORTC QLQ-C30, European Organization for Research and Treatment of Cancer quality of life questionnaire-C30; SD, standard deviation  \*n=15 because of one missing value  †n=72 because of one missing value | | | | | |

**eTable 7. Differences in Mean EORTC QLQ-C30 scores between survivors with and without clinical levels of depression (cutoff ≥ 8 HADS-D)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Survivors without clinical levels of depression**  **(n=78)** | **Survivors with clinical levels of depression**  **(n=11)** | **Unstandardized Difference** | **P-value** |
| **Functioning scales: mean (SD)** | | | | |
| Physical functioning | 85.4 (19) | 71.5 (14) | -13.89 | .002 |
| Emotional functioning | 87.7 (18) | 63.6 (29) | -24.05 | .002 |
| Role functioning | 86.5 (21) | 62.1 (17) | -24.42 | .0001 |
| Cognitive functioning | 86.1 (17) | 66.7 (37) | -19.45 | .11 |
| Social functioning | 87.8 (21) | 77.3 (25) | -10.55 | .12 |
| Global quality of life | 83.1 (16) | 60.6 (25) | -22.51 | .004 |
| **Symptom scales: mean (SD)** | | | | |
| Fatigue | 20.1 (22) | 43.4 (21) | 23.35 | .002 |
| Nausea/vomiting | 2.1 (6) | 1.5 (5) | -.62 | .80 |
| Pain | 9.2 (17) | 12.1 (17) | 2.93 | .54 |
| Dyspnoea | 11.1 (23)\* | 30 (33) | 18.89 | .02 |
| Insomnia | 15.4 (24) | 33.3 (37) | 17.95 | .09 |
| Appetite loss | 4.3 (15) | 15.2 (27) | 10.88 | .07 |
| Constipation | 3.0 (12) | 6.1 (14)† | 3.03 | .20 |
| Diarrhoea | 6.0 (15) | 21.2 (34) | 15.23 | .07 |
| Financial impact | 9.4 (19) | 18.2 (35) | 8.78 | .59 |
| Abbreviation:EORTC QLQ-C30, European Organization for Research and Treatment of Cancer quality of life questionnaire-C30; SD, standard deviation  \*n=10 because of one missing value  †n=77 because of one missing value | | | | |