**Author(s):**
**Date:** 2014-12-01
**Question:** Should lower-dose RT vs higher-dose RT be used for metastatic NSCLC?
**Settings:**
**Bibliography:** Fairchild 2008, Lester 2006

| **Quality assessment** | **No of patients** | **Effect** | **Quality** | **Importance** |
| --- | --- | --- | --- | --- |
|
| **No of studies** | **Design** | **Risk of bias** | **Inconsistency** | **Indirectness** | **Imprecision** | **Other considerations** | **Lower-dose RT** | **Higher-dose RT** | **Relative(95% CI)** | **Absolute** |
| **Haemoptysis: complete response** |
| 51 | randomised trials | serious2 | no serious inconsistency | serious3 | serious4 | none | 168/244 (68.9%) | 182/247 (73.7%) | RR 0.94 (0.85 to 1.03) | 44 fewer per 1000 (from 111 fewer to 22 more) | VERY LOW | CRITICAL |
| **Haemoptysis: any improvement** |
| 91 | randomised trials | serious2 | no serious inconsistency | serious3 | no serious imprecision | none | 316/394 (80.2%) | 323/398 (81.2%) | RR 1.00 (0.93 to 1.06) | 0 fewer per 1000 (from 57 fewer to 49 more) | LOW | CRITICAL |
| **Cough: complete response** |
| 51 | randomised trials | serious2 | no serious inconsistency | serious3 | serious4 | none | 151/470 (32.1%) | 123/441 (27.9%) | RR 1.08 (0.90 to 1.28) | 22 more per 1000 (from 28 fewer to 78 more) | VERY LOW | CRITICAL |
| **Cough: any improvement** |
| 91 | randomised trials | serious2 | no serious inconsistency | serious3 | serious4 | none | 445/832 (53.5%) | 377/782 (48.2%) | RR 1.1 (1.00 to 1.21) | 48 more per 1000 (from 0 more to 101 more) | VERY LOW | CRITICAL |
| **Chest pain: complete response** |
| 51 | randomised trials | serious2 | serious5 | serious3 | very serious6 | none | 137/264 (51.9%) | 158/275 (57.5%) | RR 0.89 (0.67 to 1.18) | 63 fewer per 1000 (from 190 fewer to 103 more) | VERY LOW | CRITICAL |
| **Chest pain: any improvement** |
| 81 | randomised trials | serious2 | serious7 | serious3 | serious4 | none | 307/474 (64.8%) | 309/484 (63.8%) | OR 1.00 (0.89 to 1.12) | 0 fewer per 1000 (from 27 fewer to 26 more) | VERY LOW | CRITICAL |
| **Overall symptom burden: complete response** |
| 41 | randomised trials | serious2 | serious8 | serious3 | very serious6 | none | 33/330 (10%) | 51/315 (16.2%) | RR 0.58 (0.28 to 1.21) | 68 fewer per 1000 (from 117 fewer to 34 more) | VERY LOW | CRITICAL |
| **Overall symptom burden: any improvement** |
| 41 | randomised trials | serious2 | no serious inconsistency | serious3 | serious4 | none | 216/330 (65.5%) | 243/315 (77.1%) | RR 0.86 (0.78 to 0.95) | 108 fewer per 1000 (from 39 fewer to 170 fewer) | VERY LOW | CRITICAL |
| **1-year overall survival** |
| 131 | randomised trials | serious2 | no serious inconsistency9 | serious3 | serious4 | none | 350/1613 (21.7%) | 420/1586 (26.5%) | RR 0.83 (0.73 to 0.93) | 45 fewer per 1000 (from 19 fewer to 72 fewer) | VERY LOW | IMPORTANT |
| **2-year overall survival** |
| 101 | randomised trials | serious2 | no serious inconsistency | serious3 | serious4 | none | 94/1409 (6.7%) | 112/1376 (8.1%) | RR 0.82 (0.63 to 1.07) | 15 fewer per 1000 (from 30 fewer to 6 more) | VERY LOW | IMPORTANT |
| **Dysphagia secondary to oesophagitis** |
| 71 | randomised trials | serious2 | no serious inconsistency | serious3 | serious4 | none | 123/824 (14.9%) | 167/815 (20.5%) | RR 0.73 (0.58 to 0.93) | 55 fewer per 1000 (from 14 fewer to 86 fewer) | VERY LOW | IMPORTANT |
| **Myelopathy** |
| 101 | randomised trials | serious2 | no serious inconsistency | serious3 | very serious6 | none | 1/1274 (0.08%) | 4/1263 (0.32%) | OR 0.39 (0.08 to 2.01) | 2 fewer per 1000 (from 3 fewer to 3 more) | VERY LOW | IMPORTANT |
| **Pneumonitis** |
| 31 | randomised trials | serious2 | serious10 | no serious indirectness | very serious6 | none | 6/334 (1.8%) | 12/329 (3.6%) | OR 0.66 (0.10 to 4.56) | 12 fewer per 1000 (from 33 fewer to 111 more) | VERY LOW | IMPORTANT |

1 Fairchild 2008
2 Unclear risk of bias according to Lester 2006
3 Not only stage IV disease; also some patients with SCLC; heterogeneous radiotherapy schedules that are not always low or high dose
4 Different recommendations result from lower vs. higher CI
5 I² 63.4%; non-overlapping CI
6 Complete opposite recommendations result from lower and upper CI
7 I² 31.3%, but one small discordant study (non-overlapping CI)
8 I² 48.5%; discordant results
9 Although one discordant study (Senkus-Konefka 2005)
10 I² 60.8%; discordant results

**Author(s):**
**Date:** 2014-12-04
**Question:** Should high-dose RT (30 Gy or more) vs low-dose RT (<30 Gy) be used for metastatic NSCLC?
**Settings:**
**Bibliography:** Ma 2014

| **Quality assessment** | **No of patients** | **Effect** | **Quality** | **Importance** |
| --- | --- | --- | --- | --- |
|
| **No of studies** | **Design** | **Risk of bias** | **Inconsistency** | **Indirectness** | **Imprecision** | **Other considerations** | **High-dose RT (30 Gy or more)** | **Low-dose RT (<30 Gy)** | **Relative(95% CI)** | **Absolute** |
| **Cough: any improvement** |
| 41 | randomised trials | serious2 | no serious inconsistency | serious3 | serious4 | none | 252/479 (52.6%) | 292/516 (56.6%) | OR 0.88 (0.71 to 1.08) | 32 fewer per 1000 (from 85 fewer to 19 more) | VERY LOW | CRITICAL |
| **Chest pain: any improvement** |
| 31 | randomised trials | serious2 | serious5 | serious3 | very serious6 | none | 194/268 (72.4%) | 190/282 (67.4%) | OR 1.83 (0.76 to 4.38) | 117 more per 1000 (from 63 fewer to 227 more) | VERY LOW | CRITICAL |
| **Haemoptysis: any improvement** |
| 41 | randomised trials | serious2 | serious7 | serious3 | very serious6 | none | 202/226 (89.4%) | 198/226 (87.6%) | OR 1.39 (0.60 to 3.20) | 32 more per 1000 (from 67 fewer to 82 more) | VERY LOW | CRITICAL |
| **1-year overall survival** |
| 51 | randomised trials | serious8 | no serious inconsistency9 | serious3 | serious4 | none | 228/801 (28.5%) | 189/818 (23.1%) | OR 1.28 (1.03 to 1.60) | 47 more per 1000 (from 5 to 94 more) | VERY LOW | IMPORTANT |
| **2-year overall survival** |
| 41 | randomised trials | serious8 | no serious inconsistency | serious3 | serious4 | none | 58/645 (9%) | 50/662 (7.6%) | OR 1.38 (0.94 to 2.04) | 26 more per 1000 (from 4 fewer to 67 more) | VERY LOW | IMPORTANT |

1 Ma 2014
2 Unclear blinding
3 Not only stage IV; also some patients with SCLC
4 Different recommendations result from lower vs. higher CI
5 I² 87%, discordant results
6 Complete opposite recommendations result from lower and upper CI
7 I² 82%, discordant results
8 Unclear allocation concealment (except in Erridge 2005)
9 Although one discordant study (Kramer 2005)