Hypothesised cutaneous sites of origin of stage III melanomas with unknown primary: a multi-centre study

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### Supplementary Table 1. Primary site and site of lymph node metastasis for patients with known primary (MKPs)

| MKP Primary Site | MKP Site of lymph node metastasis |  |  |  |
|------------------|-----------------------------------|---|---|---|
|                  | Cervical | Axilla | Inguinal | Total |
| **Australia**    |          |        |          |       |
| Head & Neck      | 31 (62)  | 0 (0)  | 0 (0)    | 31 (21) |
| Arms             | 0 (0)    | 11 (22)| 0 (0)    | 11 (7)  |
| Legs             | 0 (0)    | 0 (0)  | 51 (93)  | 51 (33) |
| Trunk            | 19 (38)  | 40 (78)| 4 (7)    | 63 (40) |
| **Total**        | 50 (32)  | 51 (33)| 55 (35)  | 156 (100)|

| **UK**           |          |        |          |       |
| Head & Neck      | 4 (100)  | 0 (0)  | 0 (0)    | 4 (12) |
| Arms             | 0 (0)    | 16 (67)| 0 (0)    | 16 (47)|
| Legs             | 0 (0)    | 0 (0)  | 6 (100)  | 6 (18) |
| Trunk            | 0 (0)    | 8 (33) | 0 (0)    | 8 (24) |
| **Total**        | 4 (12)   | 24 (71)| 6 (18)   | 34 (100)|

| **Italy**        |          |        |          |       |
| Head & Neck      | 0 (0)    | 0 (0)  | 0 (0)    | 0 (0) |
| Arms             | 0 (0)    | 7 (50) | 0 (0)    | 7 (32)|
| Legs             | 0 (0)    | 0 (0)  | 5 (63)   | 5 (23)|
| Trunk            | 0 (0)    | 7 (50) | 3 (38)   | 10 (45)|
| **Total**        | 0 (0)    | 14 (64)| 8 (36)   | 22 (100)|
Supplementary Table 2. Site of primary melanoma imputed for MUPs based on primary sites of MKPs matched by 5-year age, sex and LND site, first match

| Imputed Primary Site | MUP Dissection Site | Cervical | Axilla | Inguinal | Total |
|----------------------|----------------------|----------|--------|----------|-------|
| **Australia**        |                      |          |        |          |       |
| Head & Neck          | 15 (58)              | 0 (0)    | 0 (0)  | 15 (19)  |       |
| Arms                 | 0 (0)                | 4 (15)   | 0 (0)  | 4 (5)    |       |
| Legs                 | 0 (0)                | 0 (0)    | 26 (93)| 26 (33)  |       |
| Trunk                | 11 (42)              | 22 (85)  | 2 (7)  | 35 (44)  |       |
| **Total**            | 26 (33)              | 26 (33)  | 28 (35)| 80 (100) |       |
| **UK**               |                      |          |        |          |       |
| Head & Neck          | 2 (100)              | 0 (0)    | 0 (0)  | 2 (12)   |       |
| Arms                 | 0 (0)                | 5 (42)   | 0 (0)  | 5 (29)   |       |
| Legs                 | 0 (0)                | 0 (0)    | 3 (100)| 3 (18)   |       |
| Trunk                | 0 (0)                | 7 (58)   | 0 (0)  | 7 (41)   |       |
| **Total**            | 2 (12)               | 12 (71)  | 3 (18) | 17 (100) |       |
| **Italy**            |                      |          |        |          |       |
| Head & Neck          | 0 (0)                | 0 (0)    | 0 (0)  | 0 (0)    |       |
| Arms                 | 0 (0)                | 4 (57)   | 0 (0)  | 4 (36)   |       |
| Legs                 | 0 (0)                | 0 (0)    | 3 (75) | 3 (27)   |       |
| Trunk                | 0 (0)                | 3 (27)   | 1 (25) | 4 (36)   |       |
| **Total**            | 0 (0)                | 7 (64)   | 4 (36) | 11 (100) |       |
Supplementary Table 3. Site of primary melanoma imputed for MUPs based on primary sites of MKPs matched by 5-year age, sex and LND site, second match

| Imputed Primary Site | MUP Site of lymph node metastasis | Cervical | Axilla | Inguinal | Total |
|----------------------|-----------------------------------|----------|--------|----------|-------|
|                      |                                   |          |        |          |       |
| **Australia**        |                                   |          |        |          |       |
| Head & Neck          | 16 (67)                           | 0 (0)    | 0 (0)  | 16 (21)  |
| Arms                 | 0 (0)                             | 7 (28)   | 0 (0)  | 7 (9)    |
| Legs                 | 0 (0)                             | 0 (0)    | 25 (93)| 25 (33)  |
| Trunk                | 8 (33)                            | 18 (72)  | 2 (7)  | 28 (37)  |
| **Total**            | 24 (32)                           | 25 (33)  | 27 (36)| 76¹ (100)|
| **UK**               |                                   |          |        |          |       |
| Head & Neck          | 2 (100)                           | 0 (0)    | 0 (0)  | 2 (12)   |
| Arms                 | 0 (0)                             | 11 (92)  | 0 (0)  | 11 (65)  |
| Legs                 | 0 (0)                             | 0 (0)    | 3 (100)| 3 (18)   |
| Trunk                | 0 (0)                             | 1 (8)    | 0 (0)  | 1 (6)    |
| **Total**            | 2 (12)                            | 12 (71)  | 3 (18) | 17 (100) |
| **Italy**            |                                   |          |        |          |       |
| Head & Neck          | 0 (0)                             | 0 (0)    | 0 (0)  | 0 (0)    |
| Arms                 | 0 (0)                             | 3 (43)   | 0 (0)  | 3 (27)   |
| Legs                 | 0 (0)                             | 0 (0)    | 2 (50) | 2 (18)   |
| Trunk                | 0 (0)                             | 4 (57)   | 2 (50) | 6 (55)   |
| **Total**            | 0 (0)                             | 7 (64)   | 4 (36) | 11 (100) |

¹Total is 76 since n=4 MUPs matched to only 1 MKP