|                       | NCCN protocol              |                                    | EUPS diameter protocol |  | EUPS volume protocol         |   |
|-----------------------|----------------------------|------------------------------------|------------------------|--|------------------------------|---|
| Nodule classification | Diameter threshold<br>(mm) | Manual<br>diameter*,<br>number (%) | Threshold (mm)         | Semi-automated<br>diameter <sup>\$</sup> ,<br>number (%) | Threshold (mm <sup>3</sup> ) | Semi-automated<br>volume,<br>number (%) |
| Solid nodule          |                            |                                    |                        |  |                              |   |
| Negative nodule       | ≤5                         | 91 (63.2)                          | <5                     | 25 (17.4)  | <100                         | 78 (54.2)                               |
| Intermediate nodule   | ≥6 & ≤14                   | 49 (34.0)                          | ≥5 & <10               | 104 (72.2)   | ≥100 & <300                  | 48 (33.3)                               |
| Positive nodule       | ≥15                        | 4 (2.8)                            | ≥10                    | 15 (10.4)  | ≥300                         | 18 (12.5)                               |
| Part-solid nodule     |                            |                                    |                        |  |                              |   |
| Negative nodule       | ≤5                         | 0 (0.0)                            | <5                     | 0 (0.0)  | <100                         | 0 (0.0)                                 |
| Intermediate nodule   | ≥6 with solid part ≤7      | 3 (60.0)                           | ≥5                     | 5 (100.0)  | ≥100 & <300                  | 1 (20.0)                                |
| Positive nodule       | Solid part ≥8              | 2 (40.0)                           | -                      | -  | ≥300                         | 4 (80.0)                                |
| Non-solid nodule      |                            |                                    |                        |  |                              |   |
| Negative nodule       | ≤19                        | 19 (100.0)                         | <5                     | 1 (5.3)  | <1,125                       | 18 (94.7)                               |
| Intermediate nodule   | ≥20                        | 0 (0.0)                            | ≥5                     | 18 (94.7)  | ≥1,125                       | 1 (5.3)                                 |
| Overall               |                            |                                    |                        |  |                              |   |
| Negative nodule       | _                          | 110 (65.5)                         | -                      | 26 (15.5)  | -                            | 96 (57.1)                               |
| Intermediate nodule   | _                          | 52 (30.9)                          | -                      | 127 (75.6)   | -                            | 50 (29.8)                               |
| Positive nodule       | _                          | 6 (3.6)                            | -                      | 15 (8.9)   | _                            | 22 (13.1)                               |

Table S1 Classification of screen-detected lung nodules at the first LDCT scan of baseline screening using NCCN and EUPS protocols

\*, average diameter rounded to the nearest whole number; <sup>\$</sup>, average diameter. LDCT, low-dose computed tomography; NCCN, National Comprehensive Cancer Network; EUPS, European Position Statement.

Table S2 Classification of screen-detected lung nodules at the first LDCT scan of baseline screening using NCCN protocol (without rounding the average diameter to the nearest whole number)

| Nodule classification | Diameter threshold (mm) | Manual diameter*, number (%) |
|-----------------------|-------------------------|------------------------------|
| Solid nodule          |                         |                              |
| Negative nodule       | <6                      | 108 (75.0)                   |
| Intermediate nodule   | ≥6 & <15                | 32 (22.2)                    |
| Positive nodule       | ≥15                     | 4 (2.8)                      |
| Part-solid nodule     |                         |                              |
| Negative nodule       | <6                      | 0 (0.0)                      |
| Intermediate nodule   | ≥6 with solid part <8   | 3 (60.0)                     |
| Positive nodule       | Solid part ≥8           | 2 (40.0)                     |
| Non-solid nodule      |                         |                              |
| Negative nodule       | <20                     | 19 (100.0)                   |
| Intermediate nodule   | ≥20                     | 0 (0.0)                      |
| Overall               |                         |                              |
| Negative nodule       | -                       | 127 (75.6)                   |
| Intermediate nodule   | -                       | 35 (20.8)                    |
| Positive nodule       | -                       | 6 (3.6)                      |

\*, average diameter not rounded to the nearest whole number. LDCT, low-dose computed tomography; NCCN, National Comprehensive Cancer Network.

**Table S3** Management of participants and lung cancer diagnosisafter the first LDCT scan at baseline screening round accordingto NCCN protocol (without rounding the average diameter to thenearest whole number)

| Management  | NCCN protocol |  |  |  |  |
|---|---------------|--|--|--|--|
| All participants (n=1,000)                                  |               |  |  |  |  |
| Next screening  | 962 (96.2%)   |  |  |  |  |
| Short-term repeat (3/6 months)                              | 32 (3.2%)     |  |  |  |  |
| Referral to a pulmonologist                                 | 6 (0.6%)      |  |  |  |  |
| Participants with solid nodule (n=103)                      |               |  |  |  |  |
| Next screening  | 70 (68.0%)    |  |  |  |  |
| Short-term repeat (3/6 months)                              | 29 (28.2%)    |  |  |  |  |
| Referral to a pulmonologist                                 | 4 (3.8%)      |  |  |  |  |
| Participants with part-solid nodule (n=5)                   |               |  |  |  |  |
| Next screening  | 0             |  |  |  |  |
| Short-term repeat (3/6 months)                              | 3             |  |  |  |  |
| Referral to a pulmonologist                                 | 2             |  |  |  |  |
| Participants with non-solid nodule (n=16)                   |               |  |  |  |  |
| Next screening  | 16            |  |  |  |  |
| Short-term repeat (3/6 months)                              | 0             |  |  |  |  |
| Referral to a pulmonologist                                 | 0             |  |  |  |  |
| Participants without nodules (n=876)                        |               |  |  |  |  |
| Next screening  | 876           |  |  |  |  |
| No. of lung cancer diagnosis until (including) second round | 10            |  |  |  |  |

LDCT, low-dose computed tomography; NCCN, National Comprehensive Cancer Network.