## Supplementary Table I (online only). Mobility prediction model of *i*BASIC and *i*ADVANCED mobility in case 1

|                                                                                                                                                            | iBASIC               |                      | iADVANCED |       |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|-----------|-------|--|--|--|
|                                                                                                                                                            | ТМА                  | ВКА                  | ТМА       | BKA   |  |  |  |
| Predictor                                                                                                                                                  |                      |                      |           |       |  |  |  |
| ТМА                                                                                                                                                        | Yes                  |                      | Yes       |       |  |  |  |
| ВКА                                                                                                                                                        |                      | Yes                  |           | Yes   |  |  |  |
| Baseline educational category                                                                                                                              | High-school graduate | High-school graduate | NR        | NR    |  |  |  |
| Age, years                                                                                                                                                 | 68                   | 68                   | 68        | 68    |  |  |  |
| BMI, kg/m <sup>2</sup>                                                                                                                                     | 30                   | 30                   | 30        | 30    |  |  |  |
| Married/partner                                                                                                                                            | No                   | No                   | No        | No    |  |  |  |
| Race                                                                                                                                                       | White                | White                | White     | White |  |  |  |
| Diabetes                                                                                                                                                   | Yes                  | Yes                  | Yes       | Yes   |  |  |  |
| COPD                                                                                                                                                       | No                   | No                   | NR        | NR    |  |  |  |
| Dialysis                                                                                                                                                   | Yes                  | Yes                  | Yes       | Yes   |  |  |  |
| Previous treatment for anxiety<br>or depression                                                                                                            | Yes                  | Yes                  | Yes       | YES   |  |  |  |
| Self-perceived health                                                                                                                                      | Fair                 | Fair                 | Fair      | Fair  |  |  |  |
| Probability of achieving <i>independent</i> mobility, %                                                                                                    | 23                   | 9                    | <1        | <1    |  |  |  |
| 95% Confidence interval                                                                                                                                    | 3%-73%               | 1%-44%               | 0%-5%     | 0%-4% |  |  |  |
| BKA, Below-knee amputation; BMI, body mass index; COPD, chronic obstructive pulmonary disease; NR, not retained in model; TMA, transmetatarsal amputation. |                      |                      |           |       |  |  |  |

**Supplementary Table II (online only).** Mobility prediction model of *i*BASIC and *i*ADVANCED mobility in a relatively healthy patient in case 2

|                                                                                                                                          | iBASIC               |                      | iADVANCED |         |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|-----------|---------|--|--|--|
|                                                                                                                                          | ТМА                  | ВКА                  | ТМА       | BKA     |  |  |  |
| Predictor                                                                                                                                |                      |                      |           |         |  |  |  |
| ТМА                                                                                                                                      | Yes                  |                      | Yes       |         |  |  |  |
| ВКА                                                                                                                                      |                      | Yes                  |           | Yes     |  |  |  |
| Baseline educational category                                                                                                            | High-school graduate | High-school graduate | NR        | NR      |  |  |  |
| Age, years                                                                                                                               | 62                   | 62                   | 62        | 62      |  |  |  |
| BMI, kg/m <sup>2</sup>                                                                                                                   | 25                   | 25                   | 25        | 25      |  |  |  |
| Married/partner                                                                                                                          | Yes                  | Yes                  | Yes       | Yes     |  |  |  |
| Race                                                                                                                                     | White                | White                | White     | White   |  |  |  |
| Diabetes                                                                                                                                 | Yes                  | Yes                  | Yes       | Yes     |  |  |  |
| COPD                                                                                                                                     | No                   | No                   | NR        | NR      |  |  |  |
| Dialysis                                                                                                                                 | No                   | No                   | No        | No      |  |  |  |
| Previous treatment for anxiety or depression                                                                                             | No                   | No                   | No        | No      |  |  |  |
| Self-perceived health                                                                                                                    | Good                 | Good                 | Good      | Good    |  |  |  |
| Probability of achieving independent mobility, %                                                                                         | 96                   | 87                   | 67        | 67      |  |  |  |
| 95% Confidence interval                                                                                                                  | 85%-99%              | 70%-95%              | 41%-85%   | 43%-84% |  |  |  |
| BKA Below-knee amputation BMI body mass index: COPD chronic obstructive pulmonary disease: NR not retained in model: TMA transmetatarsal |                      |                      |           |         |  |  |  |

BKA, Below-knee amputation; BMI, body mass index; COPD, chronic obstructive pulmonary disease; NR, not retained in model; TMA, transmetatarsal amputation.

Supplementary Table III (online only). Mobility prediction model of *i*BASIC and *i*ADVANCED mobility in a typical patient requiring a peripheral arterial disease (PAD)-related amputation at the transtibial or transfemoral amputation level in case 3

|                                                  | iBASIC             |                    | iADVANCED |          |
|--------------------------------------------------|--------------------|--------------------|-----------|----------|
|                                                  | BKA                | AKA                | BKA       | AKA      |
| Predictor                                        |                    |                    |           |          |
| ВКА                                              | Yes                |                    | Yes       |          |
| AKA                                              |                    | Yes                |           | Yes      |
| Baseline educational category                    | 2 years of college | 2 years of college | NR        | NR       |
| Age, years                                       | 68                 | 68                 | 68        | 68       |
| BMI, kg/m <sup>2</sup>                           | 27                 | 27                 | 27        | 27       |
| Married/partner                                  | No                 | No                 | No        | No       |
| Race                                             | Nonwhite           | Nonwhite           | Nonwhite  | Nonwhite |
| Diabetes                                         | No                 | No                 | No        | No       |
| COPD                                             | Yes                | Yes                | NR        | NR       |
| Dialysis                                         | No                 | No                 | No        | No       |
| Previous treatment for anxiety or depression     | Yes                | Yes                | Yes       | Yes      |
| Self-perceived health                            | Good               | Good               | Good      | Good     |
| Probability of achieving independent mobility, % | 5                  | <1                 | <1        | <1       |
| 95% Confidence interval                          | 0%-45%             | 0%-15%             | 0%-1%     | 0%       |

AKA, Above-knee amputation; BKA, below-knee amputation; BMI, body mass index; COPD, chronic obstructive pulmonary disease; NR, not retained in model.

After the data are entered into the model, the patient is informed that the probability that he would be independent in all of the tasks including walking in the home, going up and down stairs with a handrail, and stepping up and down a curb is very poor at both amputation levels (Supplementary Table III). He may be able to be independent in some of these tasks but not all. It is fortunate that the patient lives in a wheelchair-accessible apartment because he will likely be able to return to that living environment after surgery.