

**Additional file 8: Summary of all facilitators and barriers to the implementation of a user-friendly electronic health record system according to the classification of Wensing et al. (2005)**

**Facilitators**

|                                      |                                                     |                                                                           |
|--------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------|
| <b>Organisational level</b>          | <b>Improvement of organisational processes</b>      |                                                                           |
|                                      | Organisational resources                            | access to patient records                                                 |
|                                      |                                                     | simplification of archiving and storage                                   |
|                                      | Organisational processes                            | analysis and documentation                                                |
|                                      |                                                     | readability                                                               |
|                                      |                                                     | electronic appointment allocation                                         |
|                                      | Organisational structures                           | paper-free documentation                                                  |
|                                      | <b>Time-effective manner</b>                        |                                                                           |
|                                      | Organisational processes                            | faster documentation and therapy report                                   |
|                                      |                                                     | simplified organization                                                   |
|                                      |                                                     | faster communication with other health care professions                   |
|                                      | Organisational resources                            | accessibility tools/input assistance and text blocks                      |
|                                      | <b>Improved efficiency of therapeutic processes</b> |                                                                           |
|                                      | Organisational processes                            | improvement of quality and transparency of therapy                        |
|                                      |                                                     | administration of patient-reported measurements/questionnaires in advance |
|                                      |                                                     | demonstrating treatment progress and success                              |
|                                      | Organizational resources                            | make use of assessments                                                   |
| photo documentation                  |                                                     |                                                                           |
| Organisational structures            | clinical reasoning                                  |                                                                           |
|                                      | standardisation                                     |                                                                           |
| <b>Technical support</b>             |                                                     |                                                                           |
| Organisational resources             | intuitive handling                                  |                                                                           |
|                                      | compliance with documentation requirement           |                                                                           |
| <b>Professional interaction</b>      | <b>Improvement of communication</b>                 |                                                                           |
|                                      | Structure of professional networks                  | with other professions                                                    |
|                                      |                                                     | with other physiotherapists                                               |
| <b>Factors related to structures</b> | <b>Quality</b>                                      |                                                                           |
|                                      | Societal factors                                    | marketing/professional behaviour                                          |
|                                      | Regulations                                         | higher remuneration (as motivation)                                       |
| <b>Individual level</b>              | <b>Communication</b>                                |                                                                           |
|                                      | Motivational factors                                | motivating patients                                                       |

## Barriers

|                                 |                                                     |                                                                    |
|---------------------------------|-----------------------------------------------------|--------------------------------------------------------------------|
| <b>Organisational level</b>     | <b>Time-consuming</b>                               |                                                                    |
|                                 | Organisational resources                            | induction and training programmes                                  |
|                                 |                                                     | loss of time during treatment                                      |
|                                 |                                                     | faster with handwritten documentation                              |
|                                 | Organisational structures                           | transmission of handwritten notes                                  |
|                                 |                                                     | data entry                                                         |
|                                 | <b>Accessibility of data / technical dependency</b> |                                                                    |
|                                 | Organisational resources                            | internet access                                                    |
|                                 |                                                     | risk of data loss                                                  |
|                                 |                                                     | access to hardware                                                 |
|                                 | Organisational structures                           | synchronisation is necessary                                       |
|                                 |                                                     | dependent on technology (risk of system break down)                |
|                                 | <b>Technical expertise</b>                          |                                                                    |
|                                 | Organisational processes                            | data protection                                                    |
|                                 |                                                     | training education programmes                                      |
|                                 | <b>Quality of treatment</b>                         |                                                                    |
|                                 | Organisational structures                           | loss of individuality                                              |
|                                 |                                                     | data manipulation                                                  |
|                                 |                                                     | malpractice due to typing error                                    |
|                                 | <b>Demand of technical support</b>                  |                                                                    |
|                                 | Organisational resources                            | storage capacity                                                   |
|                                 |                                                     | updates needed                                                     |
|                                 | <b>Flexibility</b>                                  |                                                                    |
|                                 | Organisational structures                           | lack of individuality of the programs/<br>missing response options |
|                                 |                                                     | marking in body chart                                              |
| <b>Professional interaction</b> | <b>Decline of communication</b>                     |                                                                    |
|                                 | Interaction in professional teams                   | patient-therapist interaction                                      |
|                                 | <b>Employer</b>                                     |                                                                    |
|                                 | Structure of professional networks                  | compliance and willingness                                         |
|                                 | <b>Medical doctors</b>                              |                                                                    |
|                                 | Interaction in professional teams                   | understanding/interpretation of results                            |
|                                 | Structure of professional networks                  | written and printed documentation<br>accepted only                 |
|                                 | <b>Other health care professionals</b>              |                                                                    |

|                                      |                                       |                                     |
|--------------------------------------|---------------------------------------|-------------------------------------|
| <b>Factors related to structures</b> | <b>Costs</b>                          |                                     |
|                                      | Financial incentives                  | purchase/acquisition cost           |
|                                      |                                       | hardware investments                |
|                                      |                                       | maintenance                         |
|                                      |                                       | Training and education              |
|                                      |                                       | profitability/cost effectiveness    |
|                                      |                                       | loss or theft                       |
|                                      | <b>Remuneration</b>                   |                                     |
|                                      | Societal factors                      | lack of remuneration                |
|                                      | <b>Hygiene</b>                        |                                     |
|                                      | Regulations                           | hardware                            |
|                                      | <b>No added value</b>                 |                                     |
|                                      | Societal factors                      | unusable results for daily practice |
|                                      |                                       | lack of recognition                 |
| <b>Individual level</b>              | <b>Excessive use of digital media</b> |                                     |
|                                      | Societal factors                      | inordinate focus on digital media   |
|                                      | <b>Technical expertise</b>            |                                     |
|                                      | Cognitive factors                     | higher aged therapists              |
|                                      |                                       | initial training needed             |
|                                      | <b>Compliance physiotherapists</b>    |                                     |
|                                      | Cognitive factors                     | older physiotherapists              |
|                                      | Motivational factors                  | personal attitude to technology     |
|                                      |                                       | fear of being controlled            |
|                                      | <b>Patients</b>                       |                                     |
|                                      | Motivational factors                  | compliance                          |
|                                      | Cognitive factors                     | comprehensibility                   |
|                                      |                                       | technical expertise                 |