1. **Upcoming versions, to implement:**

**Priorities:**

1. Scientific corrections before new developments and additions // Sanity
2. Upper menu - contains “contact us”; “about us”; “terms and conditions”; “privacy”
3. Check patient retention
4. Coupling
5. Questionnaire fine tuning
6. additional questions
7. stats; clinicians
8. Additional scientific tasks
9. chat

**Version 31/12:**

1. Tasks adjustments based on clinicians feedbacks:
   1. Speech - Add a longer sentence to the tasks
   2. Fine motor skills - replace smiley with an easier to follow shape; restyle house pic; add a finger tapping task
   3. Breathing - instead of counting to 10 - a better task is to count as long as possible in one breath
   4. A new questionnaire with **red flags** info - this will include - weight, coughing after eating, choking, specific questions about dressing and hygiene, how many pillows do they use in their sleep, ask if they take salivation medicine
2. Simplify the questionnaire English
3. Instructional text modifications
4. Menu bar:
   1. Contact us
   2. Terms and conditions
   3. About us
   4. Privacy
5. The app name should be displayed on the splash screen, not only the logo

* corrections & simple modifications (no new features)

1. Scientific:

A – Improvement of existing features:

* **General – patients: instructional text language should be adjusted to user’s preference.**
* Questionnaire:
  + **Patient comments: English has to be easier/less scientific - look for Patients like me version of questionnaire**
  + Clinical Advisors comments:
    - Show score to patients (MG), leave it optional – patient will see scores only if they wish to (VD) or see their score and where they stand compared to the average of all app users (VD)
    - Have a more detailed description of each option (use NEALS guidelines) (MG & VD)
* Speech task:
  + Importance to voice volume. Can add a task to test that (say the sentence as loud as you can) (VD). Check if we can automatically identify microphone settings
  + **Sentences are not long enough. Longer sentences will help detect difficulties in speech (MG). Check with Yael Manor if she has better suggestions for sentences**.
* Fine motor skills:
  + **See if pressure measurements can be added (MG) → check if what is identified and see how to quantify (for example - ask to press a known number of dots distributed on the screen - allows both a measurement of accuracy and pressure)**
  + **Make the shapes simpler. Replace smiley with a polygon**. (VD)
  + Add a measure of typing errors in predefined sentences.
* Breathing task:
  + an addition of recording of the breathing itself – when the microphone is placed either close to the mouth or to the trachea. (MG). Maybe try a test for controls first
* Mobility task:
  + Need to know who is walking in passive measurement (MG)
  + Instructions - figure

B – Addition of features:

* Add questions from ECAS (VD) - future development
* **Red flag – swallowing – coughing after eating; choking** (VD) - “personal zone”
* **Red flag** - 5% weight loss (maybe abdominal circumference) (VD & MC) - in “personal zone”
* **Red flag** - Loss of 3 points over one month (VD) - automatic
* **Red flag** - falls
* **Red flag** - breathing changes (10% change, counting less than 30; questionnaire: changes of orthopnea 2 or less, dyspnea 2 or less)
* Dressing and hygiene – only reporting: button up shirt vs. T-shirt; pants with/without buttons; shoes with laces or not (VD) - questions in “personal zone”
* In the additional questionnaire - add a question about common daily life tasks such as clipping nails and opening jars
* Fine motor skills - changes in the ability to sign name
* Nighttime: quality of sleep is an important parameter, accelerometer data enough (VD)
* Swallowing – go for voice recording (MG)
* Orthopnea – put phone on the same point on chest when they go to bed (MG) (personal zone - ask how many pillows)
* Salivation: nighttime- humidity on pillowcase; look for measurements of salivation rate in other diseases (takes medicine - personal zone)
* Cutting food – no good input
* Respiratory insufficiency – data extraction directly from Bi-PAP machines

1. Patient incentives:

A – Must have / doable

* MH – Stats presentation and transfer of data to clinicians.
  + What needs to be done: initial data analysis (Meni/Hani/ IBM); option to add clinician name to the app (Nelly & Ari & DB); a way to display results (Nelly & Ari)
* Doable - chat

3. Clinicians -

* Legal: what kind of agreement/consent is needed from patients and what can clinicians get.

4. Data:

* sanity
* controls vs. patient

B – Nice to have / difficult

Partial (questionnaire & speech) or full translation of app to additional languages