

Self-Management phase

Ana visits her internist for her quarterly checkup at the hospital. She is a Type 2 DM patient since 12 years; before her appointment she performs her blood analysis. She is not very used to computers and technology, so when her internists gives her instructions to fill out some online questionnaires, she asks her daughter to do it.

Week 1

Ana is interested to use POWER2DM and tells her daughter who starts the web-service at her own laptop Saturday morning after their visit to the internist. At the first usage, POWER2DM offers Ana a visual tour of the system. Tailored by her daughter, she accepts and is informed about the various functions of POWER2DM. Her daughter explains every function and solves every doubt that her mother has. In the tour Ana is invited to personalize her account. She can upload a photo, connect her digital agenda with POWER2DM, set ringtones and timezone and choose an avatar who will guide her through the system and can be asked for help. Ana thinks she is too old for this kind of things but she knows this tool can be very useful to improve her health and she has to make an effort trying to understand it. Her daughter is very proud of Ana.

POWER2DM also inquires if Ana uses certain glucose monitors by providing a list of possible monitors. Her daughter selects her device. POWER2DM offers to log her data directly from her monitor into the online log-book of Power2DM. In this way, her daughter can watch the data and the progress of her mother in any computer. Ana agrees and goes through the steps to link her monitor to POWER2DM.

In the next step of the tour POWER2DM asks for other specific apps or wearables that may provide useful information for the management of her Diabetes. Her daughter does not want to complicate the process and she thinks it is better without these devices. Ana is pleased that also other medical devices like blood pressure monitors or pulsioxymeters may interact with POWER2DM, although she is not using those devices at the time.

During the tour she is also asked about privacy and security settings. Ana has to indicate which health professionals take care of her diabetes and who are allowed access to her personal data. She is not very trusted about this but her daughter says her that it is necessary to follow the diabetes control progression. So, Ana allows her internist to access her data. POWER2DM also asks if other people, like a partner, child, parent or friend may have access. Ana, of course, decides that her daughter will be an active part of the care of her diabetes and allows her to access the data. She does not use Twitter or Facebook and skips these questions. She indicates that she wants to be warned if someone tries to access her data, who she did not approve of.

At the end of the tour, POWER2DM strongly advises to use two functions of POWER2DM in order to specify the way she wants to manage her diabetes as discussed with her internist. However Ana's daughter decides to do this tomorrow on Sunday morning because she knows this is new to her mother and she is not used to this kind of technologies. She wants POWER2DM to provide a reminder on her smartphone tomorrow at 10 AM.

The next morning Ana is having the breakfast and she hears a buzz on her phone. In an email her avatar reminds her to take the next steps in POWER2DM.

Value Compass

The nurse also explained Ana to use POWER2DM Value compass as a guide to know the things that Ana gives more importance and act accordingly. As Ana wants to stop being afraid of cardiovascular events and to suffer a hypo when taking care of their granddaughters in the morning, she tells her daughter she wants to use the “Value Compass” of the Action Plan Engine in order to become more aware of her personal values and to specify them. POWER2DM guides Ana with questions through the Value Compass. Ana realizes that currently two of her personal values are impaired by her diabetes:

- She enjoys walking with her grandchildren and she would love taking them to the school and go back home by walking every day but because of her fear of hypos she is not very confident about it. This is something Ana already discussed with her doctor. Being aware that walking with her grandchildren is really a pleasure to her, she is willing to monitor her blood glucose more strictly to avoid hypos and being able to enjoy walking without fear.
- Another personal value was watching TV and often all the family goes to the theater. She knows that she needs good sight for this hobby. She realizes that if she wants to carry on with her hobby in later age, she has to manage her diabetes properly and prevent diabetic retinopathy.

After finishing the value check, POWER2DM advises Ana to take the next step to specify the way she wants to manage her diabetes as discussed with her internist.

Self-management Goals and Activities (Action Plan Engine)

Ana and her daughter have a look at the treatment goals and adopt them in the first step as self-management goals. Next, she asks herself how she can realize these goals as part of her daily life and whether she has to modify them. Based on the treatment goals and on her personal values they specify the following self-management goals:

- Within the next month, buy a pillbox, learn to use it, and control it weekly with her daughter.
- Increase the exercise by leaving/taking back the grandchildren at least 2 times a week.

In the next step Ana breaks down her self-management goals into short-term activities. Her daughter is going to set the calendar in POWER2DM and specifies the following activities for her mother:

- Pill review in the pillbox every day at 20:00. Ana sets a reminder 5 minutes before.
- “Grandchildren school” Mondays, Wednesdays and Fridays at 8:30 (leaving) and 13:00 (taking back). Ana specifies reminders 30 minutes before. During the next week Ana and her daughter execute Action Plan and record data about her activities with her smartphone. She is understanding the process more and more and she is improving her ability to manage this tool.

Month 1 (weeks 2-4)

Ana bought the pillbox, and now she fills daily her ability to take the pills. With the help of POWER2DM reminders, she is improving the accomplishment of the medication, and by week 4 she performs this task alone, without other help. She is becoming confident that she can do this. As this happens, she is more open minded to talk about it with her daughter, and they share the “fails” in achieving a particular day’s treatment.

She also started to bring/take back the grandchildren to school. This is taking a little more effort than she thought because of tiredness and some fear to be carrying them alone.

Month 2-4

At second month, Ana is getting her goal of >80% correct treatment with the help of the pillbox and the reminders of treatment. She is looking forward to go to her medical check next month, because she is sure that her blood analysis would be better, and that makes her feel really good.

She has bought new sport shoes, and now does the “grandchildren school” activity daily. She has had no big problem with this task, and now she considers herself able to be in charge. She is waiting for this moment everyday.

With the children activity, she feels she is more agile now. She weighted yesterday and has lost 3 kg since the beginning of the program. She remembers that POWER2DM popped up a video congratulating her 2nd kg loose last month, and that she and her daughter laughed at it. In fact, this is a favorite video of one of her grandchildren, and she always asks to see it.

She remembers that the doctor made her an estimation of her cardiovascular risk at the beginning of the program, and she didn't like what she saw. She is willing to see the new outlook after her life change.

Evaluation and Feedback

Ana returns to the internist for her quarterly check-up. Her internist is already informed by the POWER2DM reports that Ana is doing fine at the moment. Ana and the internist evaluate the successes and failures in past 4 months. Also using POWER2DM is evaluated. Ana's HbA1c is better now and also her quality of life is improved. There is no problem to be analyzed. Ana and the internist decide that she can continue with the same treatment goals and plans in the next 4 months.