



# POWER2DM

“Predictive model-based decision support for diabetes patient empowerment”

**Research and Innovation Project**

**PHC 28 – 2015: Self-management of health and disease and decision support systems based on predictive computer modelling used by the patient him or herself**

## Deliverable 1.7

### D1.4.3a Test and Evaluation Report for POWER2DM Components and Integration I

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<b>PU</b>	Public	X
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

## Document History:

Version	Date	Changes	From	Review
V1.0	25 <sup>th</sup> April 2017	Initial version including test script but without test results	PD	
V2.0	12 <sup>th</sup> July 2018	Version including test results of Prototype 2, based on which completion of the prototype is planned.	PD	

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## EXECUTIVE SUMMARY

This document describes the test cases for the end to end testing of the POWER2DM system based on the use cases and requirements provided in D1.2 Requirements Specification of the POWER2DM Architecture. The end to end tests include the following subsystems: POWER2DM Shared Decision Making Application (user interface for manual entry), POWER2DM Personal Data Store (backend data storage and retrieval), POWER2DM Prediction Services (backend services to run KADIS model for simulation, to run MT2D-MARVEL model, and to run Risk Score models with the supplied data), POWER2DM Action Plan Engine, POWER2DM Communication Engine, POWER2DM Mobile Application, POWER2DM Sensor Processing Framework and POWER2DM User Management, Authentication and Authorization Framework.

Most test cases are passed, but some are not run, blocked or failed due to missing or failing functionality. For these situations bugs are registered in Redmine. Testing is repeated for every fix and every new release. The system is not deployed in the production environment until all essential functionality is available and working correctly.

## POWER2DM Consortium Partners

Abbv	Participant Organization Name	Country
TNO	Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek	Netherlands
IDK	Institute of Diabetes “Gerhardt Katsch” Karlsburg	Germany
SRDC	SRDC Yazilim Arastirma ve Gelistirme ve Danismanlik Ticaret Limited Sirketi	Turkey
LUMC	Leiden University Medical Center	Netherlands
SAS	SAS Servicio Andaluz de Salud	Spain
SRFG	Salzburg Research Forschungs Gesellschaft	Austria
PD	PrimeData	Netherlands
iHealth	iHealthLabs Europe	France

### OPEN ISSUES

No:	Date	Issue	Resolved
1	28-04-2017	The report cannot be created yet, as end to end testing has not started yet. After the platform is delivered end to end testing can be performed. Moreover, system tests for the individual components have also not been carried out yet.	Yes
2	12-07-2018	Bugs found by testing. See chapter 2 columns “Test Step Actual Result” and “Status” and the open issues list in redmine: <a href="https://scm.primevisiononline.com/projects/horizon-2020_power2dm/issues">https://scm.primevisiononline.com/projects/horizon-2020_power2dm/issues</a>	No, but followed up in Redmine

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# 1 INTRODUCTION

## 1.1 Purpose and Scope

This document describes the test cases for the end to end testing of the POWER2DM system based on the use cases and requirements provided in D1.2 Requirements Specification of the POWER2DM Architecture. The end to end tests include the following subsystems: POWER2DM Shared Decision Making Application (user interface for manual entry), POWER2DM Personal Data Store (backend data storage and retrieval), POWER2DM Prediction Services (backend services to run KADIS model for simulation, to run MT2D-MARVEL model, and to run Risk Score models with the supplied data), POWER2DM Action Plan Engine, POWER2DM Communication Engine, POWER2DM Mobile Application, POWER2DM Sensor Processing Framework and POWER2DM User Management, Authentication and Authorization Framework.

The order of the test cases is based on how they are organised in the supporting test tooling SpiraTest. The test case steps, expected result and actual results, as well as the concluding execution status are displayed in a summary list form. If tests result in the expected outcome, they are marked as Passed. Some of the tests are not run, because at the time functionality was not available or placed out of scope. If tests are marked as Blocked, it indicates that the test could not be carried out due to a technical problem that needs to be fixed first. If tests are marked as Failed they are carried out, but the results are incorrect.

For blocked and failed test cases bugs are registered in the software management tooling Redmine. Together with the clinical partners a priority is set for these bugs, based on if the bug is blocking or of lesser impact. Testing is repeated for every fix and every new release. The system is not deployed in the production environment until all essential functionality is available and working correctly.

## 1.2 References to POWER2DM Documents

- POWER2DM Description of Work (Proposal)
- D1.1 User Requirements and Use Case Scenarios
- D1.2 Requirements Specification of the POWER2DM Architecture

## 1.3 Definitions, Abbreviations and Acronyms

Table 1 List of Abbreviations and Acronyms

Abbreviation/ Acronym	DEFINITION
API	Application Programming Interface
App	Application
D	Deliverable (e.g. D1.2)
JITAI	Just-in-time adaptive intervention
PDS	POWER2DM Personal Data Store component
SDMA	Shared Decision Making Application
SMSS	Self-Management Support System
TC	Test Case
T1DM	Type 1 diabetes
T2DM	Type 2 diabetes
UCT	Use Case Test(s)
UC	Use Case
UI	User Interface

## 2 USE CASE TESTS & TEST RESULTS

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
	4680	Use case tests based on POWER2DM D1.2						N/A		
	5954	SDMA – PDS						N/A	26-06-18	
1	4499	D1.2 UC1.1.1 Manually register patient data from existing eHealth systems to POWER2DM	Patient's clinical information, diagnoses, lab and questionnaire results which are collected by the external eHealth system is registered to POWER2DM either by automated data integration or manual data entry.					Passed	26-06-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for manual entry), POWER2DM Personal Data Store (data storage backend)	Check that these systems are available.		Passed		
				2	Preconditions 1. Diabetes Nurse is logged on the POWER2DM 2. Diabetes Nurse is authorized to access the patient data in external eHealth system 3. Diabetes Nurse is authorized to register patient data to POWER2DM	Check that these preconditions are met.		Passed		
				3	Diabetes Nurse selects the patient from the list of patients registered in POWER2DM Care Program	Check that this can be done.		Passed		
				4	Diabetes Nurse navigates to the Data Registration tab of POWER2DM Shared Decision Making Web Application	Check that this can be done.		Passed		
				5	Diabetes Nurse enters the following information into the forms; i. Diagnoses related with diabetes ii. Latest lab results available in the eHealth system iii. Latest questionnaire results applied to patient via eHealth system	Check that this can be done.		Passed		
				6	Diabetes Nurse clicks the save button.	Check that the system stores the information to the POWER2DM Personal Data Store	When a nurse account is used the data cannot be saved and the backend returns result code 500. When a practitioner account is used the data is saved.	Passed		
2	4617	D1.2 UC1.1.2 Automatically register patient data from existing eHealth systems to POWER2DM	Patient's clinical information, diagnoses, lab and questionnaire results which are collected by the external eHealth system is registered to POWER2DM either by automated data integration or manual data entry.					Blocked	03-07-18	0.24.13

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				1	Scope: POWER2DM Shared Decision Making Application (user interface for manual entry), POWER2DM Personal Data Store (data storage backend)	Check that these systems are available.	Feature not available yet	Blocked		
				2	Preconditions 1. Diabetes Nurse is logged on the POWER2DM 2. Diabetes Nurse is authorized to access the patient data in external eHealth system 3. Diabetes Nurse is authorized to register patient data to POWER2DM	Check that these preconditions are met.		Not Run		
				3	Diabetes Nurse selects the patient from the list of patients registered in POWER2DM Care Program and navigates to the Data Registration page of POWER2DM Shared Decision Making Web Application.	Check that this can be done.		Not Run		
				4	Diabetes Nurse links the patient account in eHealth system with the patient's POWER2DM account	Check that the latest data records available in the eHealth System is transferred to Personal Data Store automatically		Not Run		
3	4618	D1.2 UC1.2 Register Anamnesis into POWER2DM	Internist registers anamnesis for patient into POWER2DM					Failed	27-06-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for manual entry), POWER2DM Personal Data Store (data storage backend)	Check that these systems are available.		Passed		
				2	Preconditions 1. Internist is logged on the POWER2DM 2. Internist is authorized to access/update the patient data in POWER2DM	Check that these preconditions are met.		Passed		
				3	Internist selects the patient from the list of patients registered in POWER2DM Care Program and navigates to the Anamnesis tab of POWER2DM Shared Decision Making Web Application.	Check that the application shows a list of possible problems (e.g. dose too low) for each category (e.g. insulin/medication, carbohydrates, glucose monitoring).		Passed		
				4	Internist selects the problems that patient has from this list and write some notes for each of them if it is necessary.	Check that this can be done.		Passed		
				5	If the Physician feels that the listed problems do not correspond to identified problem, he/she registers the problem by entering a textual description.	Check that this can be done.	Problem code for 'generic' problem still not implemented. Asked Tuncay for update in tech meeting. See issue <a href="https://scm.primevisiononline.com/issues/26332">https://scm.primevisiononline.com/issues/26332</a>	Failed		
				6	The Internist clicks the save button.	Check that all information is stored into POWER2DM Personal Data Store.		Passed		
4	4619	D1.2 UC2 Register Barriers into POWER2DM	Physician registers identified barriers for patient into POWER2DM by relating them with registered problems (UC2).					Passed	27-06-18	0.24.13

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				1	Scope: POWER2DM Shared Decision Making Application (user interface for manual entry) POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Physician is logged on the POWER2DM 2. Physician is authorized to access/update the patient data in POWER2DM 3. Patient amnesia and problems previously registered			Passed		
				3	Physician navigates to the Barrier Identification tab of POWER2DM Shared Decision Making Web Application	Check that the application lists the registered problems in anamnesis step		Passed		
				4	Physician selects a problem	Check that the application lists possible barriers for the selected problem		Passed		
				5	If the Physician feels that the listed barriers do not correspond to identified barrier, he/she registers the barrier by entering a textual description.	Check that this can be done.		Passed		
				6	Physician selects the ones that correspond to identified barriers for that problem and clicks the save button.	Check that all information is stored into POWER2DM Personal Data Store		Passed		
5	4620	D1.2 UC3.1 Analyze KADIS based Metabolic Fingerprint and Q-Score	Internist and patient analyze the metabolic fingerprint and Q-Score analysis created by KADIS model.					Blocked	11-07-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for visualization) POWER2DM Personal Data Store (data storage backend)		3 day data collection not working. App does not notify patient, Unclear how patient should execute KADIS data collection action plan.	Blocked		
				2	Preconditions: 1. Internist is logged on the POWER2DM 2. Internist is authorized to access/update the patient data in POWER2DM 3. Metabolic Fingerprint and Q-Score analysis have already been done and results are stored in POWER2DM Personal Data Store (UC5.6)			Not Run		
				3	The Internist navigates to the Metabolic Fingerprint tab (now: Blood Glucose Management dashboard) of POWER2DM Shared Decision Making Web Application	Check that the application retrieves the Metabolic Fingerprint and Q-Score results from POWER2DM Personal Data Store and visualizes them		Not Run		
				4	The Internist discusses with patient to validate that 5 components of the Q-score match problems as identified in anamnesis (UC1.2) and discusses with patient to validate that main potentials of improvement as indicated by the Q-score match problems and treatment plan as identified in anamnesis (UC1.2) and KADIS simulation (UC3.2)	Check that the data matches the patient previously registered amnesia and problems data		Not Run		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
6	4622	D1.2 UC3.3 Register KADIS related partial treatment goals and plan to POWER2DM	Internist registers the KADIS related partial treatment goals and plans which he/she identifies as a result of KADIS simulations (UC3.2)					Blocked	11-07-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for data entry) POWER2DM Personal Data Store (data storage backend)		3 day data collection not working. App does not notify patient, Unclear how patient should execute KADIS data collection action plan.	Blocked		
				2	Preconditions: 1. Internist is logged on the POWER2DM 2. Internist is authorized to access/update the patient data in POWER2DM 3. Approved simulation parameters for treatment plan alternatives from UC3.2 temporarily stored by POWER2DM Shared Decision Making Application	Check that the POWER2DM Shared Decision Making Web Application has converted the approved simulation parameters in UC3.2 to POWER2DM Treatment Goals and Treatment Plan items.		Not Run		
				3	The Internist reviews them and makes changes if necessary and clicks the "register" button.	Check that all information is stored into POWER2DM Personal Data Store.		Not Run		
7	4629	D1.2 UC5.1 Review planning summary	Internist and Patient reviews the summary of all decisions they take in the Shared Decision making phase in a dashboard view and also historical data. (anamnesis, barriers, treatment goals and plans registered until that time)					Passed	27-06-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for visualization) POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Internist is logged on the POWER2DM 2. Internist is authorized to access,update the patient data in POWER2DM			Passed		
				3	Internist navigates to the Patient Care Plan Summary tab of POWER2DM Shared Decision Making Web Application	Check that the Application retrieves all related records from POWER2DM Personal Data Store and visualizes the data in a summary view.		Passed		
				4	Look at the data that was retrieved.	Check that the following info is shown; i. Basic information (demographic, diagnosis, etc.) ii. Anamnesis(problem) of patient in categorical view iii. Barriers identified for each problem iv. Treatment Goals registered to address the problems and barriers v. Treatment Action Plans registered to support in reaching the goal and to address the specific problems and barriers vi.	Current implementation conforms to specifications in <a href="https://scm.primevisiononline.com/issues/27327">https://scm.primevisiononline.com/issues/27327</a>	Passed		



#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
						Prediction/Simulation/Risk Assessment results				
8	4630	D1.2 UC5.2 Register Treatment Goal	Internist registers a treatment goal into POWER2DM					Passed	27-06-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for data entry) POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Internist is logged on the POWER2DM 2. Internist is authorized to access/update the patient data in POWER2DM			Passed		
				3	The Internist initiates the Treatment Goal definition from POWER2DM Shared Decision Making Web Application.	Check that the Application visualizes the existing goals set for the patient, also showing the hierarchy among goals.		Passed		
				4	The Internist selects one of the goals and clicks to create a sub goal for it.	Check that the subgoal is created.		Passed		
				5	Internist enters details of the Goal i.e. description, the target measure (e.g. HbA1c, Number of Blood Glucose Measurements per day, strenuous physical activity per week in hours etc.), duration to reach the goal (e.g. in 6 months), etc. and relates the Goal with identified problems (anamnesis) to state that it is addressing those problems and clicks the save button.	Check that all information is stored into POWER2DM Personal Data Store.		Passed		
				6	The Internist may also define agoal which is in root level in goal hierarchy.	Check that this is possible.		Passed		
9	4631	D1.2 UC5.3 Register Treatment Plan	Internist registers a treatment plan into POWER2DM					Passed	27-06-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for data entry) POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Internist is logged on the POWER2DM 2. Internist is authorized to access/update the patient data in POWER2DM			Passed		
				3	Internist selects a registered Treatment Goal (e.g. 3 days per week of 30-minutes strenuous physical activity) and clicks to create an action plan related with it.	Check that an action plan is created.		Passed		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				4	The Internist enters the details for the Treatment Plan i.e. type of action (e.g. Run), scheduling information for action (Mondays, Wednesdays after 22:00), details of action (e.g. 5km in 30 minutes), relates the Treatment Plan with registered barriers or problems and clicks the save button.	Check that all information is stored into POWER2DM Personal Data Store.		Passed		
10	4632	D1.2 UC5.4 Specify Treatment Goal and Plans to prepare patient for KADIS usage	To use KADIS model for a patient whether in Shared Decision making phase or selfmanagement, baseline data should be collected for patient. Furthermore, the KADIS should be introduced to the patient. In this use case, Internist recommend to use KADIS for patient and action plans and goals related with these preparation phase are registered into POWER2DM.					Caution	27-06-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for data entry) POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Internist is logged on the POWER2DM 2. Internist is authorized to access/update the patient data in POWER2DM			Passed		
				3	Internist navigates to Daily Metabolic Management tab (now: Blood Glucose Management dashboard) of POWER2DM Shared Decision Making Web Application and activates the KADIS functionality for patient.	Check that the Application lists all Action Plans needed to guide patient to complete the preparations for KADIS usage for the next week i.e: i. Complete KADIS Introduction Tour ii. Obtain a CGM or Use Glucometer to measure your blood glucose every ... hour iii. Log calorie intakes for each of your meals iv. Use Physical Activity Tracker to track your physical activity or log your physical activity v. Log your insulin/medication intakes	The actions list to guide the patient to complete the preparations for KADIS is not given by the SDMA, but the patient will be informed by the physician and the patient will receive reminders in his/her POWER2DM mobile application through the Communication Engine JITAI.	Caution		
				4	The Internist and Patient go over the list and select the alternatives suitable to the patient (e.g. CGM or Glucometer). Next, the Internist clicks the "Save" button.	Check that all information is stored into POWER2DM Personal Data Store.		Passed		
	5955	SDMA – Prediction services – PDS						N/A		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
11	4621	D1.2 UC3.2 Simulate a Treatment plan with KADIS model	Internist simulates a treatment plan; insulin/medication plan, dietary intake and exercise plan on KADIS model and Metabolic Fingerprint of patient.					Blocked	11-07-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for visualization) POWER2DM Prediction Service (backend service to run KADIS model for simulation) POWER2DM Personal Data Store (data storage backend)		3 day data collection not working. App does not notify patient, Unclear how patient should execute KADIS data collection action plan.	Blocked		
				2	Preconditions 1. Internist is logged on the POWER2DM 2. Internist is authorized to access/update the patient data in POWER2DM 3. Metabolic Fingerprint and Q-Score analysis have already been done and results are stored in POWER2DM Personal Data Store			Not Run		
				3	Internist navigates to the Daily Metabolic Management tab (now: KADIS Treatment Planning dashboard) of POWER2DM Shared Decision Making Web Application, specifies the time, dosage and type of medication for insulin/medication intake and clicks on the simulate button to start the simulation.	Check that the application sends the simulation parameters to POWER2DM Prediction Service and runs the simulation based on latest "Metabolic Fingerprint" of the patient and that the application retrieves the results and visualizes them.		Not Run		
				4	When the Internist is satisfied with the last medication plan, he/she passes to the next step. The Internist specifies the time and calorie values for each meal and clicks on the simulate button to start the simulation.	Check that the application sends the simulation parameters (including the approved medication plan) to POWER2DM Prediction Service and runs the simulation based on latest "Metabolic Fingerprint" of the patient and that the application retrieves the results and visualizes them.		Not Run		
				5	When the Internist is satisfies with the last dietary plan, he/she passes to the next step. When Internist and Patient agree on the medication and dietary intake instructions, the Internist clicks on the "Next" button to pass the next phase (UC3.3) to register them as POWER2DM Treatment Goals and Action Plan.	Check that in the meantime, the latest predicted Blood Glucose Profile and the inputs used for this prediction process are stored into POWER2DM Personal Data Store		Not Run		
12	4624	D1.2 UC4.2 Analyze Risk Score predictions with the existing patient context	Internist shows patient the risk score evaluations for patient for diabetic complications (CVD, kidney diseases, etc.) with his/her current lifestyle and health status					Blocked	11-07-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for visualization) POWER2DM Prediction Service (to run Risk Score models with the supplied data)		Risk scores data not yet available in platform. Not clear where/how data should be entered/should come from.	Blocked		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
					POWER2DM Personal Data Store (data storage backend)					
				2	Preconditions: 1. Internist is logged on the POWER2DM 2. Internist is authorized to access/update the patient data in POWER2DM 3. The required data for Risk Score models execution is ready in POWER2DM Personal Data Store			Not Run		
				3	The Internist navigates to the Risk/Outcome Evaluation tab of POWER2DM Shared Decision Making Web Application and clicks "Show Long Term Risk Evaluations for Cardiovascular Diseases" button.	Check that the application retrieves the latest values for all required input variables for UKPDS (or ADVANCE) Cardiovascular Risk Engine from POWER2DM Personal Data Store and visualizes them e.g. (Age, HbA1c, Systolic BP, duration of diabetes, etc)		Not Run		
				4	In the meantime, the application sends a risk assessment query to the POWER2DM Prediction Service with this latest data.	The POWER2DM Prediction Service runs the UKPDS Cardiovascular (or ADVANCE Cardiovascular) risk engine with the supplied data and returns the results. Check that the Prediction results (e.g. Ten-year CHD risk, fatal CHD risk, stroke risk, fatal stroke risk) are visualized. And check that the Predictions are stored in POWER2DM Personal Data Store		Not Run		
				5	Then, the Internist clicks "Show Long Term Risk Evaluations for Kidney Diseases" button.	Check that the application retrieves the latest values for all required input variables for ADVANCE Kidney Risk Engine from POWER2DM Personal Data Store and visualizes them (e.g. waist circumference, Systolic-Diastolic Blood Pressure, HbA1c, age, ethnicity, etc)		Not Run		
				6	In the meantime, the application should send a risk assessment query to the POWER2DM Prediction Service with this latest data.	The POWER2DM Prediction Service runs the ADVANCE Kidney risk engine with the supplied data and returns the results. Check that the Prediction results (e.g. New onset albuminuria risk, major kidney related risk) are visualized so Patient and Internist can analyze the results.		Not Run		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				7	Then, if patient is T1D, Internist clicks "Show Long Term Risk Evaluations for Major Outcomes in T1D" button.	Check that the application retrieves the latest values for all required input variables for Major Outcomes in T1D Risk Engine from POWER2DM Personal Data Store and visualizes them (i.e. waist-hip ratio, albumin/creatinine ratio, HDL-C, HbA1c, age)		Not Run		
				8	In the meantime, the application sends a risk assessment query to the POWER2DM Prediction Service with this latest data.	The POWER2DM Prediction Service runs the Major Outcomes in T1D risk engine with the supplied data and returns the results. Check that the Prediction results (major CHD, stroke, end-stage renal failure, amputations, blindness and all-cause death) are visualized. And check that the Predictions are stored in POWER2DM Personal Data Store.		Not Run		
13	4626	D1.2 UC4.4 Analyze outcome expectancies with Risk Score models in case goals are reached	The Internist shows Patient how his/her risk of having complications (CVD, kidney related) may change if Patient can reach a specific goal by using Risk Score models. The comparison of these with the expectations assuming that patient keeps his current lifestyle and status are also shown to the patient.					Blocked	11-07-18	0.24.13
				1	Scope: POWER2DM Shared Decision Making Application (user interface for visualization) POWER2DM Prediction Service (to run Risk Engine models with the supplied data) POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Internist is logged on the POWER2DM 2. Internist is authorized to access/update the patient data in POWER2DM 3. The required data for Risk Score Engine execution is ready in POWER2DM Personal Data Store		Risk scores data not yet available in platform. Not clear where/how data should be entered/should come from.	Blocked		
				3	The Internist navigates to the Risk/Outcome Evaluation tab of POWER2DM Shared Decision Making Web Application, clicks "Simulate Risk Assessment" button and selects the risk assessment type (UKPDS Cardiovascular Risk Engine, ADVANCE Kidney Risk Engine, etc)	Check that the Application shows sliders for the input parameters of the corresponding Risk Engine and retrieves the latest values of these from POWER2DM Personal Data Store		Not Run		
				4	The Internist clicks "Use my goals for simulation" button to tune some of the input variables (e.g. HbA1C) to the target values set in the registered Treatment Goals.	Check that the application tunes the variables accordingly.		Not Run		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				5	Next, the Internist clicks the "simulate" button and the application sends a risk assesment query to POWER2DM Prediction Service with the supplied data (tuned parameters and latest neutral parameters)	The POWER2DM Prediction Service runs the corresponding Risk Engine model with the supplied data and returns the results. Check that the Risk assessment results are visualized in comparison to previous prediction to show the improvement and effect of reaching those goals. And check that the Risk assessment results are stored in POWER2DM Personal Data Store		Not Run		
				6	The Internist may tune the parameters manually to perform different simulations	Check that this is possible.		Not Run		
	5956	SMSS web interface – PDS						N/A		
14	4635	D1.2 UC6.1.1 View Treatment Goals and Plan	In this use case, the patient uses the POWER2DM Action Plan Engine to view the treatment goals and plan that have been specified during the Shared Decision making process. The original treatment goals and plans as specified during the Shared Decision making phase cannot be modified.					Failed	02-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface. 2. Treatment Goals and Plans are available to the Action Plan Engine; event needs to be generated by the Shared Decision Making Application.			Passed		
				3	Patient opens the Action Plan User Interface and navigates to the menu item "Treatment Goals and Plans"	Check that the Treatment Goals and Plans that were previously submitted are shown. And check that they cannot be modified by the Patient.	When I add an action plan for Physical activity in the SDMA, it is not shown in the SMSS web interface.	Failed		
15	4636	D1.2 UC6.1.2 View Treatment Goals and Plan via Notification	In this use case, the patient gets a notification, that new or updated Treatment Goals or Plans are available, and clicks it to view the treatment goals and plan that have been specified during the Shared Decision making process.					Blocked	02-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface. 2. Treatment Goals and Plans are available to the Action Plan Engine; event needs to be generated by the Shared Decision Making Application.		Action plans created in SDMA are not shown in SMSS currently	Blocked		
				3	Patient gets a notification, that new or updated Treatment Goals or Plans are available and clicks (or taps) the notification and is able to view the current Goals/Plan.	Check that the Treatment Goals and Plans that were previously submitted are shown. And check that they cannot be modified by the Patient.		Not Run		
16	4637	D1.2 UC6.2 Accept Treatment Goals and Plans	In this use case, the patient uses the POWER2DM Action Plan Engine, and accepts treatment goals and plans that have been specified during the Shared Decision making process. If a treatment plan needs no change, the patient can directly import activities to his/her calendar.					Blocked	02-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface. 2. Several treatment goals and plan have been specified and are available to the Action Plan Engine.		Action plans created in SDMA are not shown in SMSS currently	Blocked		
				3	The Patient opens the Action Plan User Interface and navigates to the menu item "Action Plan -> Goals"	Check that the Patient gets presented the Treatment Goals and Plans		Not Run		
				4	The Patient selects a treatment goal or plan and dismisses it.	Check that the Patient can comment the reason.		Not Run		
				5	The Patient selects another treatment goal accepts it as a self-management goal.	Check that the Action Plan Engine links it to the treatment goals resp. treatment plan		Not Run		
				6	In case a treatment plan is selected the patient can import it as an activity to his/her calendar.	Check that this can be done.		Not Run		
17	4638	D1.2 UC6.3 Add or Modify Self-Management Goals	The patient uses the POWER2DM Action Plan Engine to add or modify selfmanagement goals					Passed	02-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface.			Passed		
				3	The Patient opens the Action Plan User Interface and navigates to the menu item "Action Plan -> Goals"	Check that the Action Plan Engine presents all available self-management goals		Passed		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				4	To modify goals, the patient selects the goals and clicks the Button "Modify" and modifies the goal properties (e.g. description, etc.)	Check that the modifications are stored in the Personal Data Store.		Passed		
				5	In case a new goals should be added the patient clicks the Button "Add" and describes the new goal including the goal properties.	Check that the modifications are stored in the Personal Data Store.		Passed		
				6	In case a goals should be deleted the patient selects the goals and clicks the Button "Delete"	Check that the modifications are stored in the Personal Data Store.		Passed		
18	4639	D1.2 UC6.4 Specify personal value compass	The patient uses the POWER2DM Action Plan Engine to specify his/her personal values (value compass)					Caution	02-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface.			Passed		
				3	The Patient opens the Action Plan User Interface and navigates to the menu item "Action Plan -> Value compass"	Check that the Action Plan Engine guides the patient through the different categories of the value compass, e.g. health, husband/wife/partner, family, friends, work		Passed		
				4	The patient can modify his/her personal values of the value compass.	Check that this is possible.	I can modify the values of the compass and assigns importance and satisfaction values. However, when I set a (importance or satisfaction) slider to zero and refresh, it puts the slider back at 50%. It seems that the value zero is stored though.	Caution		
				5	The patient specifies personal values for a category.	Check that the value compass is stored in the Personal Data Store.		Passed		
19	4640	D1.2 UC6.5 Identify barriers	The patient uses the POWER2DM Action Plan Engine to identify his/her barriers for specific problems e.g. Low frequency insulin. Barrier: Fear injections					Blocked	03-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface.			Passed		
				3	The Patient opens the Action Plan User Interface. If a problem is identified regarding a specific goal of patient, patient is asked to initiate a barrier identification process related with the problem.	Check that this is so.	Action plans entered in SDMA are not shown in SMSS	Blocked		



#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				4	The Action Plan Engine guides the patient through a workflow for identifying barriers (interactive dialog with patient)	Check that, after identifying the barrier, the patient is provided a set of interventions to overcome the barrier.		Not Run		
20	4641	D1.2 UC7.1 View Action Plan	In this use case, the patient uses the POWER2DM Action Plan Engine, to view the self-management activities of the Action Plan.					Failed	03-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface. 2. Self-Management Goals and Action Plan are specified and available for this patient.			Passed		
				3	The Patient opens the Action Plan User Interface and navigates to the menu item "Action Plan -> Calendar"	Check that the Patient gets presented the Action Plan (scheduled activities) in the calendar view	The registered and active action plan is not shown in the calendar	Failed		
				4	The Patient should be able to switch between different views on planned activities (Weekly, Agenda view, etc.)	Check that this is possible.		Not Run		
				5	The Patient should be able to view the properties of an activity, e.g. values (e.g. glucose value), related selfmanagement goal, comments	Check that this is possible.		Not Run		
21	4642	D1.2 UC7.2 Add or Modify Self-Management Activities	The patient uses the POWER2DM Action Plan Engine to review or modify the selfmanagement activities.					Blocked	03-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface. 2. Self-Management Goals and Action Plan are specified and available for this patient.			Passed		
				3	The Patient opens the Action Plan User Interface and navigates to the menu item "Action Plan -> Calendar"	Check that the Action Plan Engine presents a calendar with the current activities		Passed		
				4	The Patient selects an activity and modifies the properties, e.g. time or duration	Check that the modifications are stored in the POWER2DM Personal Data Store.	Action plans entered in SDMA are not shown on the calendar	Blocked		
				5	In case a new activity should be added the patient selects a date and a timeframe for the new activity.	Check that a new activity description can be added, and check that the patient can relate the activity to a self-management goal (optional).		Not Run		
				6	In case a goal should be deleted, the patient selects the goals and clicks the Button "Delete"	Check that the selected goals are deleted.		Not Run		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
22	4643	D1.2 UC7.3 Manage the Action Plan using the Action Plan Dashboard	This use case describes the Action Plan Dashboard, which allows the patient to review his/her daily progress and a summary of the past period (e.g. week). The dashboard is also the "home page" of the action plan and can be configured according to the needs of the patient.					Blocked	03-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface. 2. Self-Management Goals and Action Plan are available			Passed		
				3	The patient opens the action plan user interface.	The patient should be able to see inbox messages (notifications and interventions), overall performance, upcoming activities and result charts – depending on the dashboard configuration.		Blocked		
				4	The patient reads and follows messages/interventions available in the inbox (if any).	Check that this can be done.	Waiting for ticket 28721	Not Run		
				5	The patient adds daily observations (measurement results) not yet automatically inserted by one of the medical devices.	Check that this can be done.		Not Run		
				6	The patient may view one or more charts with results from recent observations.	Check that this can be done.		Not Run		
23	4644	D1.2 UC7.4 Configure the Action Plan Dashboard	The patient is able to configure the elements shown in the dashboard					Blocked	03-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Patient is logged in to the POWER2DM platform and has access to Action Plan User Interface. 2. The dashboard view is available and functional			Passed		
				3	The patient opens the action plan user interface and navigates to "User Settings"	Check that the dashboard elements in the current dashboard view are shown.		Passed		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				4	The patient selects/deselects the widget that should be shown or hidden. And returns to the dashboard view ("home button")	Check that the dashboard view appears updated.	Caution because It was not clear to me there was a 'home' page other than the treatment plan or action plan pages. The 'home' page link is hidden under the power2DM logo. I suggest to make a separate home/dashboard button. Otherwise the test is passed. created improvement ticket <a href="https://scm.primevisiononline.com/issues/33967">https://scm.primevisiononline.com/issues/33967</a>	Blocked		
24	4651	D1.2 UC10.1 Review results of the recent period	The patient is able to review the results for a specific period (usually weekly, but the period can be selected). The patient gets feedback from the system regarding the success of planned activities and overall performance towards the achievement of personal goals.					Passed	03-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine and POWER2DM Personal Data Store			Passed		
				2	Precondition: 1. Patient is logged on POWER2DM and has access to the Action Plan User Interface			Passed		
				3	The patient navigates to the menu item "Action Plan -> Review".	Check that the patient is requested to add missing results for past activities, if applicable (see UC8.2). And check that the patient gets feedback how successfully s/he has achieved the planned goals and activities from the previous week.		Passed		
				4	The patient sees health-related data and can compare these with targets and/or simulated trajectories.	Check if meaningful interventions are provided (e.g. tips or motivational messages) for fostering or improving self-management goals and activities.		Passed		
				5	The patient should be able to modify the period from "weekly" to "daily", "bi-weekly" or "monthly", etc.	Check that this is possible.		Passed		
				6	Patient may continue with UC6.3 ("Add or Modify Self-Management Goals"): Based on the evaluation of the achieved goals, existing goals may be modified or new goals may be added.	Check that this is possible.		Passed		
				7	Patient may continue with UC7.2 ("Add or Modify Self-Management Activities"): Based on the evaluation of the previous period, the patient is able to decide whether planned activities for the upcoming period are realistic.	Check that this is possible.		Passed		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
25	4652	D1.2 UC10.2 Tips Personalized by the User	The patient is able to manage and personalize selected categories of tips (e.g. sleep, stress). The patient can add, modify and delete tips and prioritize them.					Failed	03-07-18	2.4.2
				1	Scope: POWER2DM Action Plan Engine and POWER2DM Personal Data Store			Passed		
				2	Precondition: 1. Patient is logged on POWER2DM and has access to the Action Plan User Interface			Passed		
				3	The patient navigates to the menu item "Action Plan -> Tips"	Check that the Action Plan Engine shows the patient's tips organized per category.		Passed		
				4	Select a tip category (e.g. stress tips) and add a new tip and specify the priority for the tip.	Check that the modifications are stored in the personal data store.	Adding tips did not work until I clicked 'reset settings'. Then all standard tips appeared (they weren't visible before). Then added tips worked.	Failed		
				5	The Patient should also be able to modify existing tips and if applicable change the priority for the tip.	Check that this is possible.	issue <a href="https://scm.primevisiononline.com/issues/33970">https://scm.primevisiononline.com/issues/33970</a>	Passed		
				6	The Patient should also be able to delete a tip .	Check that this is possible.		Passed		
	5958	<b>SMSS mobile app - External medical devices - PDS</b>						N/A		
26	4645	D1.2 UC7.5 Self-Management via Mobile Dashboard						Failed	10-07-18	4.1.0
				1	Scope: POWER2DM Action Plan Engine POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions 1. Patient is logged in to the POWER2DM platform and has access to Mobile Application			Passed		
				3	The patient opens the Mobile Application.	Check that the Mobile Dashboard is shown to patient and that the patient can see: - the planned actions until the end of day; - the important results/observations until now (both manual entries and device collected data); - today's performance tips and suggestions	No tasks are shown when the patient or clinician has added tasks (kadis etc.).	Failed		
27	4646	D1.2 UC8.1 Transfer medical device measurement into POWER2DM	In this use case, measurement(s) from a medical device will be automatically and directly transferred to POWER2DM system via POWER2DM Mobile Application					Blocked	10-07-18	4.1.0

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				1	Scope: Medical Device <>, POWER2DM Mobile Application, POWER2DM Sensor Processing Framework, and POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Measurement is done and temporarily stored in the Medical Device 2. Connection (e.g. bluetooth connection) is established between the Medical Device and the POWER2DM Mobile Application 3. Medical Device is linked with patient account in POWER2DM		BG5 displays "Erd" when it is not paired.	Blocked		
				3	Medical Device sends the measurement(s) to POWER2DM Mobile Application.	Check that the POWER2DM Mobile Application transfers the measurements to the POWER2DM Sensor Processing Framework. The Sensor Processing Framework analyses the quality of data, appends the related metadata and saves the records to POWER2DM Personal Data Store.		Not Run		
28	4647	D1.2 UC8.2 Register daily observations manually	Patient manually register his/her daily observations, results, or log of his actions.					Passed	10-07-18	4.1.0
				1	Scope: POWER2DM Mobile Application OR POWER2DM Action Plan Engine, and POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Precondition: Patient is logged in on the system.			Passed		
				3	Check that it is possible to register: body weight, complaints, mood, reporting of diabetic events, reporting of physical activities, reporting of dietary intakes, reporting of medication intakes, and acknowledgement of performed action (in relation to Action Plan)			Passed		
				4	Patient selects the type of record (e.g. complaint, body weight, etc) that he/she wants to log, enters the required information and saves the data.	Check that the POWER2DM Mobile Application (or POWER2DM Action Plan Engine) sends the record to POWER2DM Personal Data Store to store it.		Passed		
29	4648	D1.2 UC8.3 Transfer data from external self-management platforms	In this use case, the POWER2DM system periodically (daily, hourly, etc.) pulls information from external self-management platforms (measurements or patient input (dietary, fitness) that patient is already using and for which the external system as well as the patient allow access.					Failed	10-07-18	4.1.0

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				1	Scope: External Self-Management Platform <>, POWER2DM Sensor Processing Framework and POWER2DM Personal Data Store (data storage backend)			Passed		
				2	Preconditions: 1. Automatic data integration is implemented between the platform and POWER2DM Personal Data Store 2. Patient has already linked his/her External Self-Management Platform and POWER2DM account and allows automatic data transfer		No external connection	Failed		
				3	The POWER2DM Personal Data Store queries the External Self-Management Platform's corresponding service with the necessary credentials and retrieves the latest records.	Check that the records are converted to POWER2DM data model and stored in POWER2DM Personal Data Store		Not Run		
30	4649	D1.2 UC9.1 Deliver JITAI interventions based on patient's progress	Communication Engine analyses patient's progress based on the collected patient data and if it detects patterns it delivers a suitable intervention to patient considering also the burden on the patient and interruptibility of the patient.					Blocked	10-07-18	4.1.0
				1	Scope: POWER2DM Communication Engine, POWER2DM Personal Data Store and POWER2DM Mobile Application		Notifications do not work	Blocked		
				2	Preconditions: 1. Either new information related with a self-management activity is stored in to Personal Data Store or the period to analyse patient progress is due. 2. Physician approved the JITAI to apply for patient during the Shared Decision making phase. See UC5.5.			Not Run		
				3	The Communication Engine analyses patient progress for the last day/hours considering various aspects of self-management including: i) blood glucose management, ii) dietary/weight management, iii) physical activity management, iv) sleep/stress management and v) other aspects such as general diabetes progress, complications, action plan adherence, etc. The Communication Engine checks whether the patient has a preference for the self-management aspect of interest (e.g he/she has related goals or action plan). The Communication Engine analyses the interruptibility of the patient (e.g. what is the best time to show the intervention).And the Communication Engine determines the suitable modality and content (e.g asking question for barrier identification vs. motivation by showing personal relevance vs motivation by showing outcome expectancies) for the intervention to be delivered.	Based on the decisions, the Communication Engine either plans the intervention for immediate delivery or for a later suitable time and stores (queues) the intervention metadata.		Not Run		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				4	When the time comes for the planned intervention, a push notification for POWER2DM Mobile Application is prepared and send to the patient.	Check that the POWER2DM Mobile Application signals (beeping and by led) the patient about the push notification.		Not Run		
				5	The patient reads the message and clicks on it to get further information.	Check that the Mobile Application shows the prepared content for the JITAI (in a specific user view).		Not Run		
				6	Also check that the Intervention delivery is logged in Personal Data Store once the intervention is delivered.			Not Run		
				7	The patient can react on the JITAI.	If so, the reaction time and patient context is stored to Personal Data Store.		Not Run		
31	4650	D1.2 UC9.2 Communication Engine reminders	Communication Engine delivers an intervention before or after a planned activity.					Blocked	10-07-18	4.1.0
				1	Scope: POWER2DM Communication Engine, POWER2DM Action Plan Engine, POWER2DM Personal Data Store and POWER2DM Mobile Application		Notifications do not work	Blocked		
				2	Preconditions: 1. An action plan including activities with a certain time is created by the patient 2. Adaptive reminding for this action plan is approved by the Physician during the Shared Decision making phase. See UC5.5			Not Run		
				3	The Action Plan Engine triggers the Communication Engine for the upcoming activity. The Communication Engine checks whether patient has preference for the self-management aspect of interest. The Communication Engine analyses the interruptibility of the patient The Communication Engine determines the suitable modality and content for the intervention to be delivered (e.g. simple reminder vs warning by presenting performance feedback, etc).	Based on the above decisions, the Communication Engine either plans the intervention for immediate delivery or for a later suitable moment and stores the intervention metadata.		Not Run		
				4	When the time comes for the planned intervention, a push notification for POWER2DM Mobile Application is prepared and send to the patient.	Check that the POWER2DM Mobile Application signals (beeping and by led) the patient about the push notification.		Not Run		
				5	The patient reads the message and click on it to get further information.	Check that the Mobile Application shows the prepared content for the JITAI (in a specific user view).		Not Run		
				6	Also check that the Intervention delivery is logged in Personal Data Store once the intervention is delivered.			Not Run		
				7	The patient can react on the JITAI.	If so, the reaction time and patient context is stored to Personal Data Store.		Not Run		
32	4673	D1.2 UC12.1 Customize user profile						Failed	10-07-18	4.1.0

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				1	Scope: POWER2DM Mobile Application or POWER2DM Action Plan Engine, POWER2DM Personal Data Store			Passed		
				2	Precondition: Patient is logged on POWER2DM			Passed		
				3	The patient navigates to the Settings/User Profile page of POWER2DM Mobile Application.	Check that the patient's User Profile and Settings are shown.	There is no user profile page	Failed		
				4	The patient updates data fields. The patient clicks to save to persist changes	Check that the updates are saved.		Not Run		
33	4674	D1.2 UC12.2 Link medical device or self-management application to patient account	A patient links an existing medical device or a self-management application with her POWER2DM account					Caution	10-07-18	4.1.0
				1	Scope: POWER2DM Mobile Application, POWER2DM Personal Data Store, External Self-Management Platform <>			Passed		
				2	Precondition: The medical device or self-management application has an open Application Programming Interface (API) allowing external applications to connect.			Passed		
				3	The patient navigates to the Settings/Integration page of POWER2DM Mobile Application.	Check that the Settings/Integration page of POWER2DM Mobile Application is shown.		Passed		
				4	The patient clicks the application/device to be integrated to POWER2DM and confirms to giving permissions to POWER2DM to connect to the application's/device's API.	Check that POWER2DM has permissions to be able to query the external application or device API.	Linking is just via bluetooth. No other types of external device may be linked	Caution		
	5957	<b>User Management, Authentication and Authorization</b>						N/A		
34	4675	D1.2 UC13.1 Create Patient Account	Patient is registered to the POWER2DM Care Program and an account is created for patient to access POWER2DM SMSS.					Passed	03-07-18	
				1	Scope: POWER2DM Shared Decision Making Application, POWER2DM User Management, Authentication and Authorization Framework, POWER2DM Personal Data Store			Passed		
				2	Preconditions: 1. Diabetes Nurse is logged on the POWER2DM, 2. Diabetes Nurse is authorized to create a patient account, 3. Patient signs the consent form to use POWER2DM SMSS, 4. Other care providers accounts associated to the patient should have been created			Passed		
				3	The Diabetes Nurse navigates to the Patient Registration page from POWER2DM Shared Decision Making Web Application.	Check that the Patient Registration page from POWER2DM Shared Decision Making Web Application is shown.		Passed		



#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				4	The Diabetes Nurse enters the following information into the form; e-mail address of the patient (to be used as username), name, birth date, etc. And selects other care providers that are associated with the patient	After the Diabetes Nurse clicks the register button, check that the system creates an account for the patient. And check that the POWER2DM User Management, Authentication and Authorization Framework sends an email to the patient's registered email address for the approval of registration with an automatically generated password.		Passed		
				5	The Patient opens his/her email account from his mobile phone and clicks on the link in the received email and approves the registration.	Check that: An account is created for patient with a valid username and password in POWER2DM User Management, Authentication and Authorization Framework and the Patient's basic demographic data are stored in POWER2DM Personal Data Store		Passed		
35	4676	D1.2 UC13.2 Create Care Provider Account	A new account for a care provider is created by specifying the necessary credentials as well as the roles.					Caution	03-07-18	
				1	Scope: POWER2DM Shared Decision Making Application, POWER2DM User Management, Authentication and Authorization Framework, POWER2DM Personal Data Store			Passed		
				2	Precondition: Care Provider has the right to create account for himself/herself.			Passed		
				3	The care provider navigates to care provider registration page from POWER2DM Shared Decision Making Web Application. The care provider specifies the necessary credentials, e-mail and role (e.g. nurse, dietician, etc.) and clicks to register button.	Check that the system creates an account for the care provider and that the POWER2DM SMSS sends an email to the care provider's registered e-mail address for the approval of registration with an automatically generated password.	A care provider may only register patients.	Caution		
				4	The care provider opens his/her email account and clicks on the link in the received email and approves the registration.	Check that: An account is created for the care provider. And that the care provider's registration data are stored in Personal Data Store.		Passed		
36	4677	D1.2 UC13.3.1 Care Provider Sign-on to POWER2DM	A CareProvider is signing in to the POWER2DM system to use POWER2DM Shared Decision Making Application					Passed	03-07-18	
				1	Scope: POWER2DM User Management, Authentication and Authorization Framework, POWER2DM Shared Decision Making Application, POWER2DM Mobile Application, POWER2DM Action Plan Engine			Passed		
				2	Precondition: User has a POWER2DM account			Passed		

#	Spira Test#	Name	Description	Test Step	Test Step Description	Test Step Expected Result	Test Step Actual Result	Status	Last Executed	Release
				3	User navigates to sign on page from corresponding POWER2DM Application (POWER2DM Shared Decision Making Application, POWER2DM Mobile Application or POWER2DM Action Plan Engine) and enters the credentials to sign-in.	Check that the POWER2DM User Management, Authentication and Authorization Framework authenticates the user and delivers the credentials to the client application which they will use to access the POWER2DM services on behalf of the user. And that the User is navigated to the user interface of the corresponding POWER2DM Component.		Passed		
37	4678	D1.2 UC13.3.2 Patient Sign-on to POWER2DM	A CareProvider is signing in to the POWER2DM system to use POWER2DM Shared Decision Making Application					Passed	03-07-18	
				1	Scope: POWER2DM User Management, Authentication and Authorization Framework, POWER2DM Shared Decision Making Application, POWER2DM Mobile Application, POWER2DM Action Plan Engine			Passed		
				2	Precondition: User has a POWER2DM account			Passed		
				3	User navigates to sign on page from corresponding POWER2DM Application (POWER2DM Shared Decision Making Application, POWER2DM Mobile Application or POWER2DM Action Plan Engine) and enters the credentials to sign-in.	Check that the POWER2DM User Management, Authentication and Authorization Framework authenticates the user and delivers the credentials to the client application which they will use to access the POWER2DM services on behalf of the user. And that the User is navigated to the user interface of the corresponding POWER2DM Component.		Passed		
38	4679	D1.2 UC13.4 Configure access control settings	A patient specifies data access permissions for the associated care providers.					Blocked	03-07-18	
				1	Scope: POWER2DM User Management, Authentication and Authorization Framework		Mobile application not available.	Blocked		
				2	Precondition: Patient is logged on POWER2DM			Not Run		
				3	The patient navigates to the Access Control Settings from POWER2DM Mobile Application or POWER2DM Action Plan Engine. The patient updates data access permissions for the associated care providers and clicks save to persist changes.	Check that the access permissions to the patient's data are updated.		Not Run		