



DiADeM

A tool to support the diagnosis of Moderate to advanced Dementia in care home settings

Diagnosing Advanced Dementia Mandate

DiADeM

DiADeM App

Diagnosing Advanced Dementia Mandate

Instruction Manual for App Users

August 2017

1 Active involvement

2 Social engagement

3 Intellectual activity

4 Interactions

5 All criteria

Supported by
Alistair Burns National Clinical Director
In a letter January 2016 Alistair recommended using DiADeM and DeAR – GP tools to help raise Dementia diagnosis rates

About DiADeM
DiADeM was developed in paper form in 2015 and for some time it has been felt that an electronic version of the tool would be really useful so the Yorkshire and Humber CN teamed up with Code4Health to develop the tool into an App that can be used on a variety of hand held portable devices. A small steering group which includes the clinical networks GP Dementia Adviser, representatives from Code4Health, Application Insight – the App developer and Network staff, has been working towards getting a prototype ready including testing prior to launching the App and making it available Regionally and Nationally.

A diagnosis of Advanced Dementia in the Care Home setting can be made with a high degree of certainty if ALL five criteria listed are met

The App version can be used on a smart phone or tablet. Through the app, the protocol would be:

- Available instantly as soon as access is required removing the need to download and print.
- Automatic calculations will eliminate user error.
- The mobile App includes different cognitive impairment tests which facilitates choice where clinicians prefer one over another. (e.g. 5CIT or GP COG)
- The App generates a report at the end of the test which is sent via a secure method to an OPEN EHR server where it sits until the patients GP practice is alerted automatically and the practice manager or designated lead can login with a secure username and password to retrieve the report and then act on it appropriately.
- The reports include advice for the GP on next steps to take including adding the patient to the GP Dementia register if it is a positive diagnosis using the relevant ICD 10 codes.
- A DiADeM SNOMED read code has been granted to indicate a dementia diagnosis using DiADeM which improve registration and will help future audits
- The success of DiADeM can have huge potential for further App development across health and social care

APP testing underway available to use soon

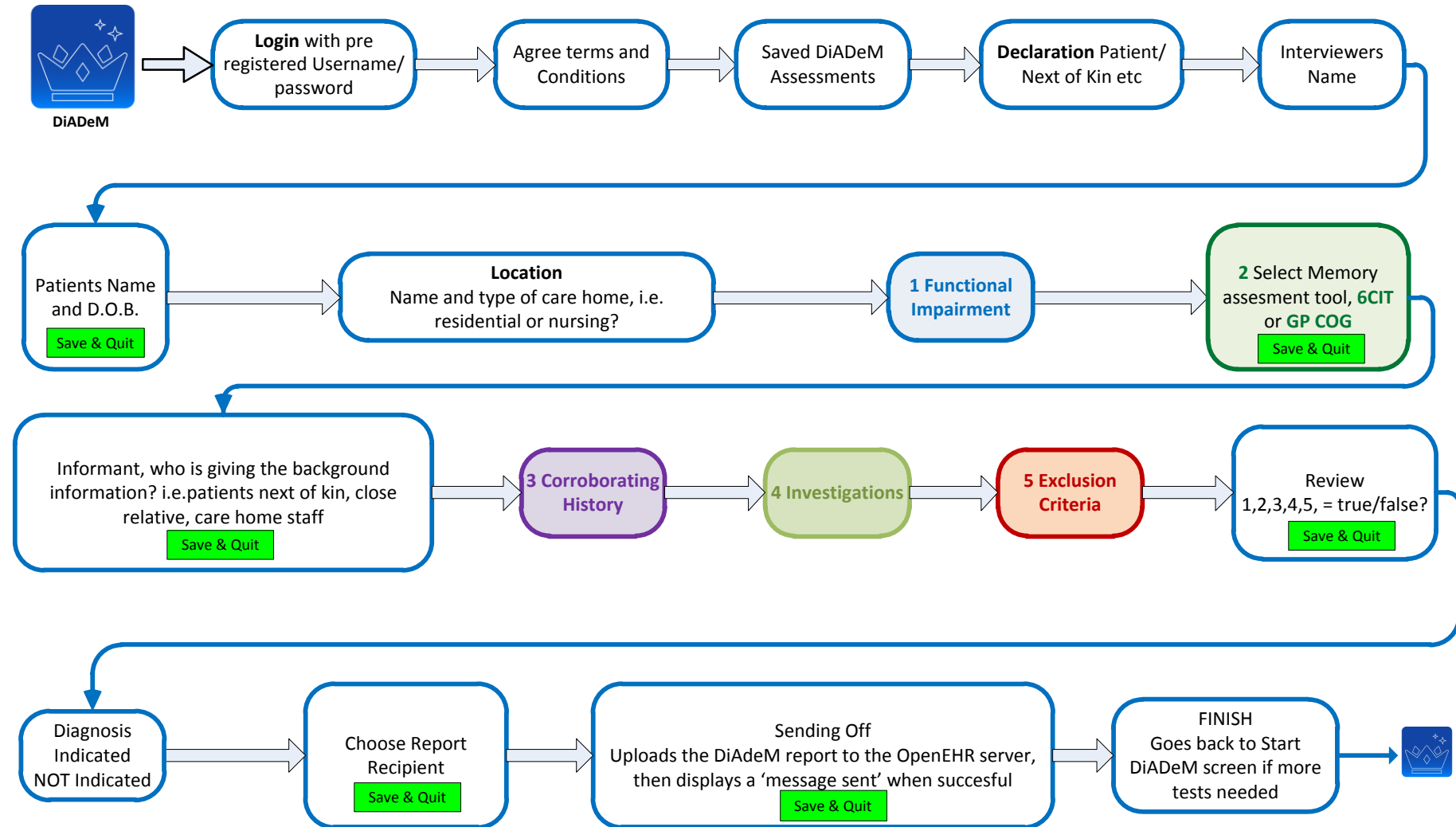
DiADeM Web Service


Background to DiADeM


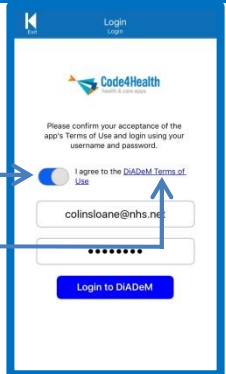
Users of the DiADeM App

Recipients of DiADeM Reports

QUICK GUIDE – The screens in the DiADeM App are very straight forward and should be easy to follow, below are a quick guide to the steps in the process of a DiADeM assessment. The pages following this ‘Quick Guide’ give further detail about the DiADeM project and describe in more detail each screen you will see on the App.



No.	DiADeM App Testing Instructions		
	<p>INTRODUCTION</p> <p>The DiADeM Tool is a Dementia Diagnosis tool aimed solely for use in care home settings; it was developed approx 18 Months ago by the Yorkshire and Humber Dementia Clinical Network. It was developed with input from a range of stakeholders including experts in the field of Dementia from across the health spectrum and in particular from Dr Graeme Finlayson & Dr Subha Thiyagesh who shared their existing protocols on which this tool is based.</p> <p>The tool has support from and has been recommended by Prof Alistair Burns the National Clinical Director for Dementia We completed an audit of the use of the tool in 2016 and it was quite positive and shows that at least 24 positive diagnosis of Dementia have been made using the paper based DiADeM tool and a further 9 responses had made positive diagnosis but were not sure of numbers. The audit shows good use of the tool but there is room for further promotion, awareness and training.</p> <p>It was felt that an electronic version of the tool would be really useful and the Yorkshire and Humber CN has teamed up with Code4Health to develop the tool into an App that can be used on a variety of hand held portable devices. A small steering group which includes the clinical networks GP Dementia Adviser, representatives from Code4Health, Application Insight - the App developer and Clinical Network staff, has been working towards getting the Public Beta version 1.0 ready for launching and making it available Regionally and Nationally. After initial testing in October 2016 and July 2017 we are now launching the Public Beta V1.0 DiADeM app.</p> <p>Please follow the instructions set out in this guide to help</p>		
	<p>You will have been directed when you registered for an account to help you to get the App installed on your chosen device</p> <p>When you have the app on your device you are ready to start using DiADeM.</p> <p>You should have a DiADeM Crown on your device similar to this image</p>		

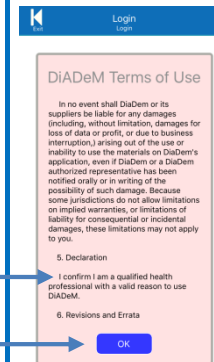
	<p>There are a number of steps within the App that will always be the same so to guide you through those general processes please follow these instructions each time you use DiADeM.</p>	
<p>1</p>	<p>Begin by opening up the app on your device you will see the DiADeM home screen 'Welcome to DiADeM' From here you simply touch on the 'Start DiADeM' blue button</p> <p>Or you can touch the DiADeM Crown symbol in the navigation bar along the bottom</p>	
<p>2</p>	<p>Login</p> <p>This is the Login screen where you enter the username and password you set up when you registered for an account Users will have to agree to the DiADeM terms and conditions –</p> <p>you can view these by clicking on the link here</p> <p>this will open the terms and conditions in a new window see below</p> <p>*NO Internet or Wi-Fi connection – DiADeM works best when there is an internet connection available. However, when this is not possible you can still use the App and store the DiADeM assessment on the device. As soon as you then go in to an area where you can connect to the internet you can go back in to the App and send the report off in the usual manor, the assessment will then automatically be deleted from the device. The App will store an assessment for a period of no longer than 1 Month from the date of the assessment after which time the stored data will be deleted even if the report has not been sent. It will be the App user's responsibility</p>	

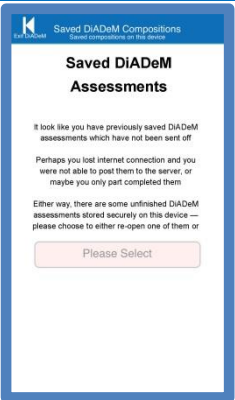
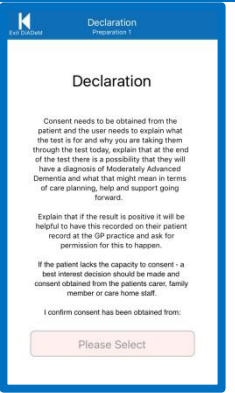
to ensure if this happens that they arrange for the assessment to be done again with that patient.

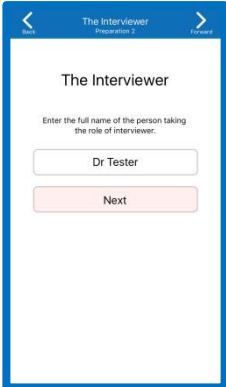
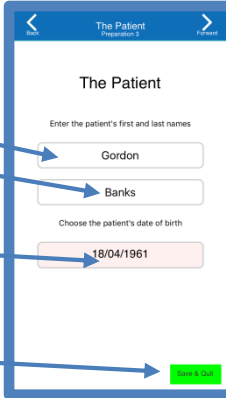
DiADeM terms and conditions

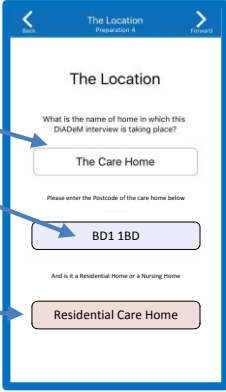
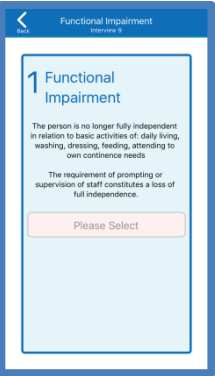
At the end of the terms of conditions we ask the user to confirm they are a qualified health professional with a valid reason to use DiADeM

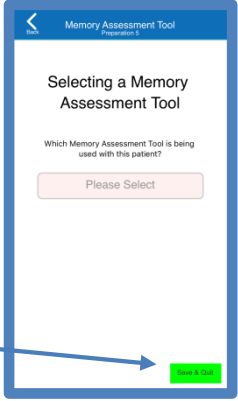
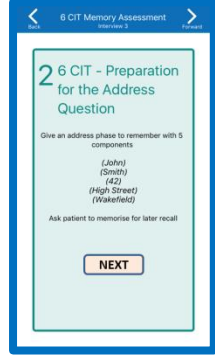
When the agreement has been read the user can click OK
This takes you back to the screen above (Login) from there click login to DiADeM



<p>3</p>	<p>Saved DiADeM Assessments</p> <p>If you have previously saved any DiADeM assessments this screen will appear when you log in. You will be able to select the saved assessment and continue to complete it.</p>		
<p>4</p>	<p>Declaration</p> <p>You are then taken to a Declaration screen which is confirmation that you have had a conversation with the patient and/or the patients next of kin, patients close relative or care home staff</p>		

<p>5</p>	<p>The Interviewer</p> <p>The next screen asks you to enter the full name of the Interviewer - please enter your name here each time After the first test the app will auto complete the Interviewer name each time the user accesses it. If you are sharing device please ensure that you enter your name here each time you do a DiADeM assessment</p>	
<p>6</p>	<p>The Patient</p> <p>The next screen asks for the full name of the patient - please add the patients First name here Surname here</p> <p>Please complete the Date of Birth field</p> <p>At this point you can Save & Quit should you wish to come back and complete later The next time you login to the app you will see a 'Saved DiADeM Assessments' screen where you will be able to choose earlier saved assessments</p>	

<p>7</p>	<p>The Location</p> <p>The next screen is the Location – Here you will need to enter the Name of the care home postcode of the care home</p> <p>Here you have a drop down of just two options either:</p> <ul style="list-style-type: none"> • Residential care home • Nursing home <p>Select as appropriate</p>	 <p>The screenshot shows a mobile app screen titled 'The Location' (Preparation 4). It contains three main sections: a text input field for the care home name, a text input field for the postcode, and a dropdown menu for the type of care home. Arrows from the text in the adjacent cell point to these three elements: the name field, the postcode field, and the 'Residential Care Home' option in the dropdown.</p>
<p>8</p>	<p>Functional Impairment</p> <p>The next screen you will see is the Functional Impairment Screen please select 'True' or 'False' if this is marked True then the test continues</p> <p>If False is selected the next screen will be the Review screen and you will follow the path as described at 11 below</p>	 <p>The screenshot shows a mobile app screen titled 'Functional Impairment' (Interview 9). It features a large number '1' and the title 'Functional Impairment'. Below this is a paragraph of text explaining the criteria for functional impairment. At the bottom of the screen is a button labeled 'Please Select'.</p>

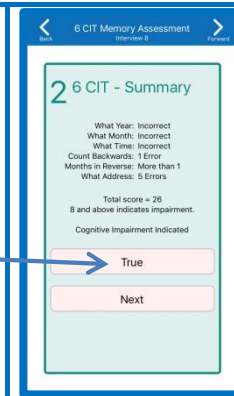
<p>9</p>	<p>Selecting a Memory Assessment Tool</p> <p>The next screen is where you select the cognitive memory assessment test, the DiADeM App incorporates the 6 CIT which is the test that is embedded in the original paper based version of DiADeM and we have also added in the GP COG</p> <p>Please select your preferred test</p> <p>At this point you can Save & Quit should you wish to come back and complete later. The next time you login to the app you will see a 'Saved DiADeM Assessments ' screen (see 3 above) where you will be able to choose earlier saved assessments</p>	
<p>10</p>	<p>Memory Assessment</p> <p>Follow the on screen instructions until you come to the end of the test</p>	

11 Memory Assessment Summary

The next screen you will see is the Summary screen relating to the cognitive impairment test taken (either 6 CIT or GP COG) which has totalled up the scores and worked out if cognitive impairment is indicated or not

The pink bar will display one of the following:

- 1) Informant Interview Needed (GP COG Part 2) if this is indicated then you will need to do an informant interview with the patients next of kin, close relative or car home staff to complete the GP COG assessment
- 2) False -(if impairment is NOT indicated)
- 3) True - (if Impairment IS Indicated)



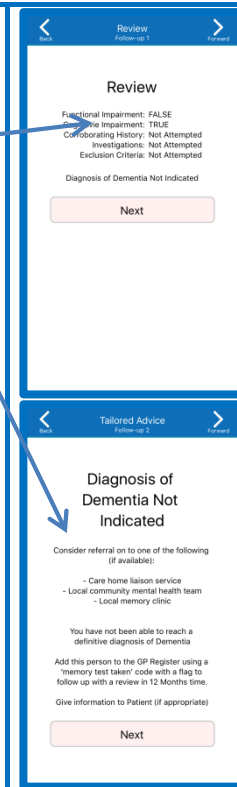
12 Review

The next screen will Depend on the result of the cognitive impairment test - If Cognitive impairment is NOT indicated then the next screen that you will see is the **Review** screen which will confirm that cognitive testing was false and therefore diagnosis of Dementia NOT Indicated (Because DiADeM is based on diagnosing Dementia in care home settings only if ALL 5 criteria are True)

After the Review screen a further screen is displayed **Diagnosis of Dementia Not Indicated** with advice around considering further referrals on to other services if in your clinical judgement it may be helpful/useful/needed and also to consider adding this person to the GP register using a 'memory test taken' code (where used/available) and to consider giving advice/patient information etc.

This Review Screen is used throughout the App whenever a Negative/False is selected at any of the 5 tests, the user is directed to the review screen and then the advice screen because a positive diagnosis has not been reached

The Review screen also appears when all 5 tests are Positive and a Diagnosis of Dementia is indicated - the screens that follow on from that point are then different and give advice on adding the patient to the GP register with the relevant CTv3/Read/ SNOMED codes etc. The suggested codes will appear in the DiADeM reports
The screens that follow a Positive diagnosis can be seen from page 12 below



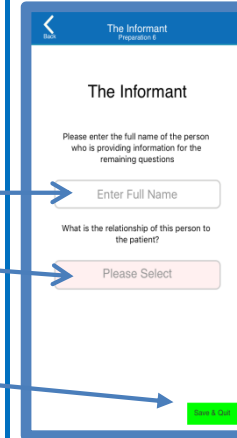
13

The Informant

If the Cognitive Impairment test is positive then the next screen is the Informant screen
Please enter their name _____

Choose from the drop down list the informants relationship to the patient

At this point you can Save & Quit should you wish to come back and complete later.
The next time you login to the app you will see a 'Saved DiADeM Assessments' screen (see 3 above) where you will be able to choose earlier saved assessments

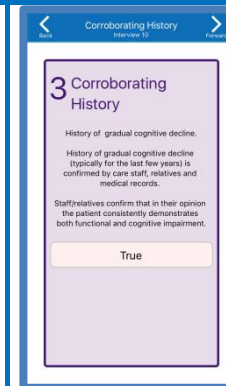


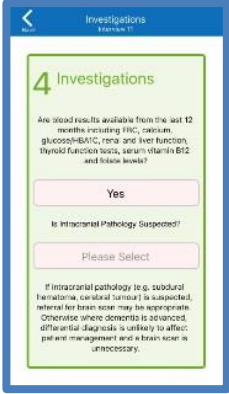
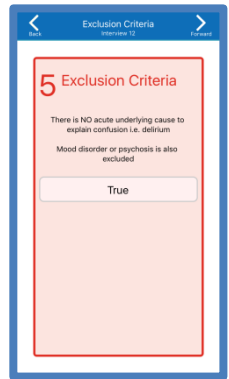
14

Corroborating History

The next screen you will see is the Corroborating History Screen please select 'True' or 'False' if this is marked True then the test continues

If False is selected the next screen will be Review screen and you will follow the same path as described at 12 above.

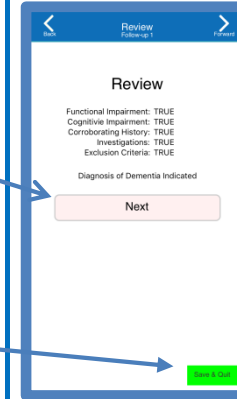


<p>15</p>	<p>Investigations</p> <p>The next screen you will see is the Investigations Screen please select 'True' or 'False'</p> <p>In the first question about Bloods there is a 'Blood tests not Appropriate' option which is selected if it is felt to be clinically inappropriate to take bloods this will not affect the decision to diagnose Dementia if all other criteria are met, the app will add a code for blood test declined (CTv3 - XaZOq or READ - 41M..) to the final report.</p> <p>There is a 'Not Available at Assessment' option to choose when you don't have previous knowledge or access to the patients record, you can choose and continue with the test and then check this in the patients record once back at the practice. The report will reflect and prompt the check.</p> <p>The second part asks 'Is Intracranial Pathology Suspected?' if you select No then the test continues. If Yes is selected the next screen will be the Review screen and you will follow the same path as described at 12 Above A note will be added to the report to consider a referral for a brain scan.</p>	
<p>16</p>	<p>Exclusion Criteria</p> <p>The next screen you will see is the Exclusion Criteria Screen please select 'True' or 'False'</p> <p>This is the last question in the DiADeM series and so the next screen you will see is the Review screen. If False is selected the Review screen will show Diagnosis of Dementia NOT indicated and you will follow the same path as described at 12 above.</p>	

16.a Exclusion Criteria cont.....

If True is selected the Review screen will show Diagnosis of Dementia Indicated
The App will continue through the screens seen on the following pages

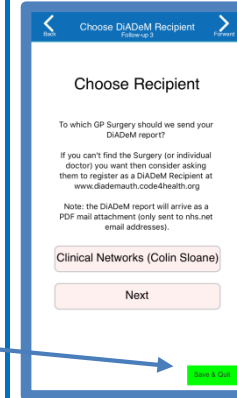
At this point you can Save & Quit should you wish to come back and complete later.
The next time you login to the app you will see a 'Saved DiADeM Assessments '
screen (see 3 above) where you will be able to choose earlier saved assessments



17 Choose Report Recipient

The next screen is the Choose report recipient screen and here you will choose the name of the GP practice to receive the DiADeM test report (usually the patients GP) . You will need to know who has registered from your practice/s to be DiADeM report receivers. A drop down list of all those who have registered to be recipients will appear for you to select the one you need.

At this point you can Save & Quit should you wish to come back and complete later. The next time you login to the app you will see a 'Saved DiADeM Assessments ' screen (see 3 above) where you will be able to choose earlier saved assessments



18 Sending Off

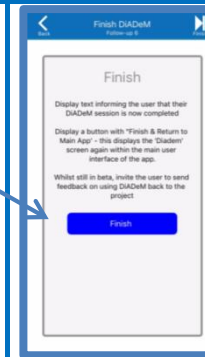
You will now be invited to review the answers to the test
At this point you are able to go **Back** to review your answers by using the navigation at the top of the screen

when you are happy, send the report click here
You will receive a notification from the server that the report has safely reached it for your own peace of mind.

At this point you can Save & Quit should you wish to come back and complete later. The next time you login to the app you will see a 'Saved DiADeM Assessments ' screen (see 3 above) where you will be able to choose earlier saved assessments



After you have sent the report the next screen is the Finish screen. When you select Finish the app will automatically delete all of the data from the assessment you have just completed and return to the home screen



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The Practice

The person who has agreed to be the Practice 'DiADeM' Champion

You will have already registered for an account on the DiADeM Web Service and will have set up a user name and password

When a DiADeM assessment has been done the person registered to receive DiADeM reports will receive an email with a PDF attachment. You will need to action this in line with locally agreed protocols. The PDF which will look similar to this

Please follow your local practice policy in relation to feeding the report in to the patient's record, including adding any read codes to the patient record to highlight a dementia diagnosis and there is now a NEWSNOMED code which relates to assessment using the DiADeM tool. All of the suggested codes appear in the DiADeM report.

DiADeM Report		
Date of Test:		15/11/17
Time of Test:		3:36 PM
Assessor Name:		Colin Skane
Patient's Name:		The Patient
Patient's Date of Birth:		05/01/1950
Informant Name:		The Informer
Location Name:		The Home
Location Type:		Residential Care Home
Consent Obtained From:		Patient
1 Functional Impairment:		TRUE
2 Cognitive Impairment:	GPC COG (PI)	True
3 Comorbidity History:		TRUE
4 Investigator:		TRUE
5 Informal Pathology Requested:	No	
6 Blood Results Available?	Not Available at Assessment	Please check before confirming diagnosis of dementia
7 Exclusion Criteria:		TRUE
Diagnosis of Dementia Indicated		
<small>Please add this patient to the GP Register using the ICD-10 codes taken from the North Yorkshire on Dementia and Delirium Coding document published July 2016. Or using the regularly locally agreed ICD-10 codes in your area please also consider adding other codes highlighted in the report which help to indicate location of patient and blood test desired.</small>		
<small>Ensure that the appropriate follow-up care including planning and next steps are recorded in the patient's health record including suggesting to relevant information and Advice and arrangements are made with the patient/carers relative to issues and agree the care plan and next steps.</small>		