

UK NEQAS Haematology
DNA Diagnostics for Haemoglobinopathies (DN) programme
Instructions for data entry

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1.0 LOGGING IN

1.1 Go to <https://www.ukneqash.org/> and click in “Log in”, as shown in figure 1.

If you are already logged onto the website proceed as in section 2.

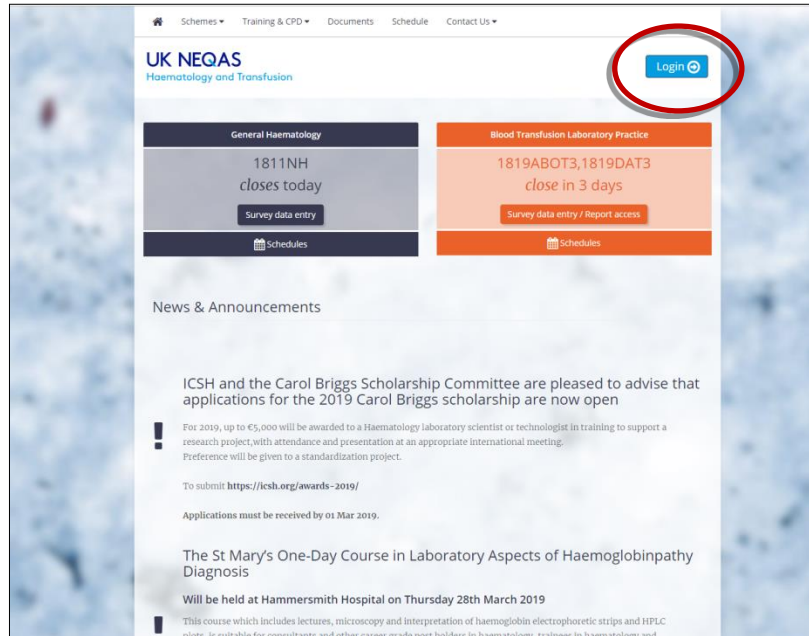


Figure 1

1.2 Enter your PRN, Identity and Password (figure 2).

If you are registered for other Haematology Schemes the PRN, Identity and Password will be the same login details.

If you are not registered for the any other Haematology Schemes you should have received your login details by email.

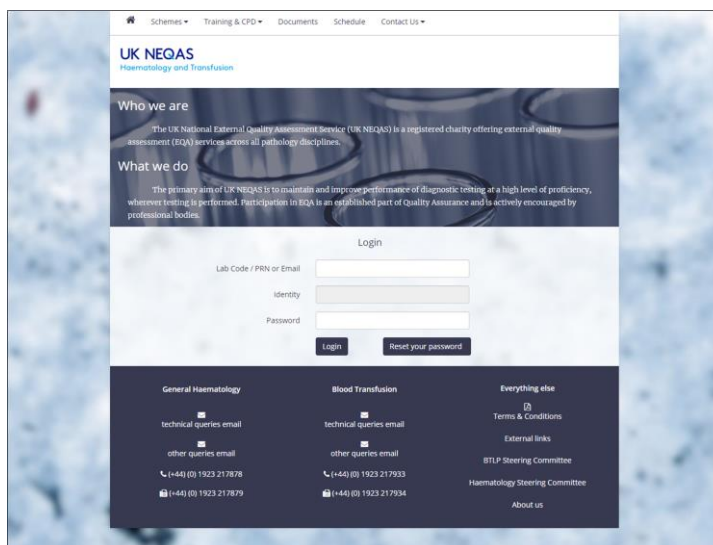


Figure 2

You will be directed to a screen as shown in figure 3.

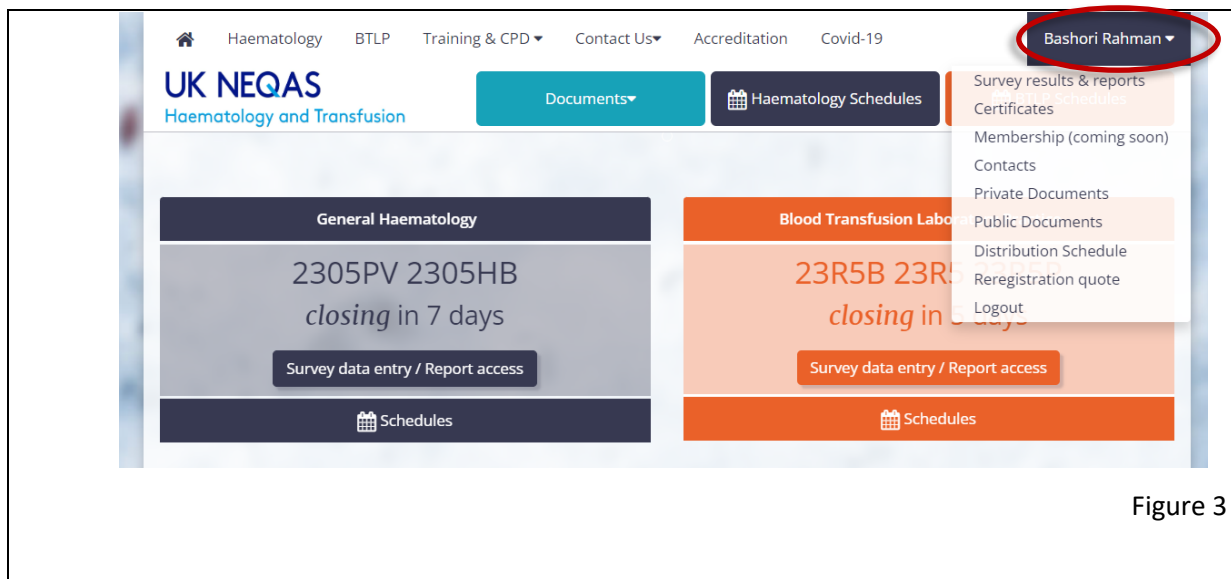


Figure 3

2.0 DISTRIBUTIONS PAGE

2.1 Click on your initials/name in the top right hand corner (figure 3) and select “**Survey results & reports**” from the drop down menu.

The Distributions page will now be displayed as seen in figure 4.

A list of distributions will be shown; you may need to filter for the relevant programme. To do this, type “**DN**” into the search box in the top right corner.

2.2 The screen will automatically filter for the DN programme as seen in figure 4.

Please note that the search term stays in the box if you go back to the page.

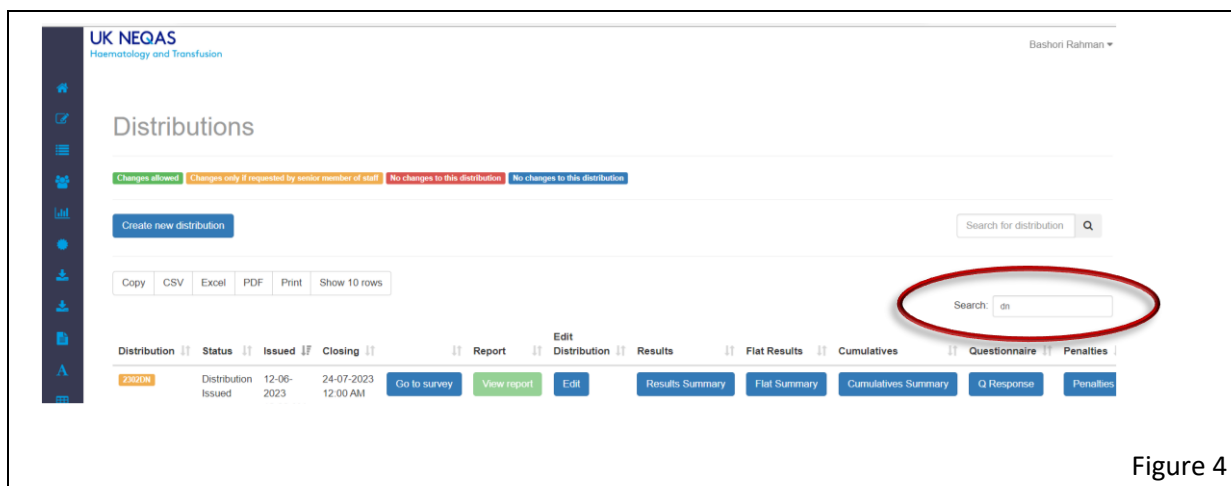


Figure 4

2.3 Click the “**Go to survey**” button (figure 4).

2.4 Click the “Enter Results” button to access the data entry page for the current distribution, as shown in figure 5.

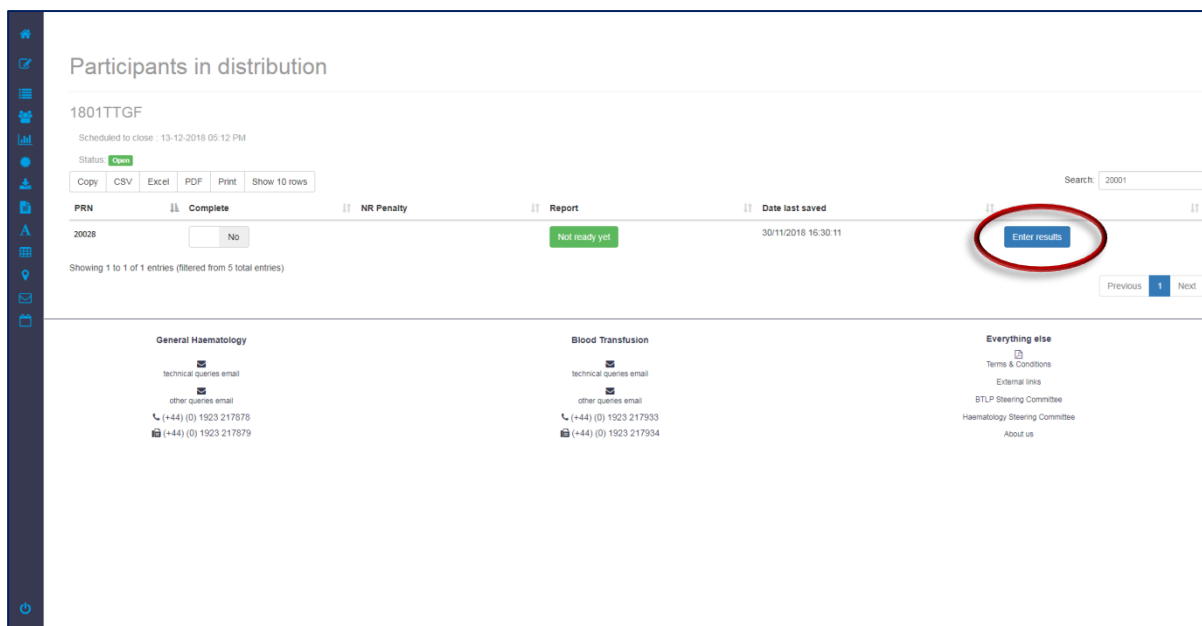


Figure 5

3.0 DATA ENTRY PAGE

Navigate through the tabs one by one in order to enter your survey results. Use the blue “Save” button to save your results as you move between tabs. This will keep your data saved if you wish to logout and return at another time without submitting them (Figure 6).



Figure 6

3.1 Specimen Quality Tab

- Please enter the date that you received your DN samples in the box (figure 7).
- Use this page to comment on the quality of the DNA samples received by selecting either “Satisfactory” or “Unsatisfactory”. Enter any additional comments about the sample quality in the text box provided.

DNA DIAGNOSTICS FOR HAEMOGLOBINOPATHIES

PRN: 20028 Closing Date: July 24th 2023
 Survey Number: 2302DN Status: Open

Instructions | **Specimen Quality** | Beta Globin Results | Interpretation | Recommendations | Technical Limitations

Save Submit
Date last saved: 07:40PM Fri 26-05-2023

Date of receipt

Specimen quality	2302DN1	2302DN2
Satisfactory	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Unsatisfactory	<input type="radio"/>	<input type="radio"/>
Comments on specimen quality	<input type="text"/>	<input type="text"/>

Figure 7

3.2 Alpha globin results

If you are registered for alpha mutations or full participation, you will see this tab (figure 8).

- If you were unable to perform alpha globin testing, but you are registered for it, please tick the “test not performed” box (figure 8a).
- Please indicate which methods were used for alpha globin genotyping on each sample by ticking the relevant boxes. If you used a method that is not listed please give details in the comment box provided (figure 8a).
- Click on the “Edit Genotype Result” box to enter your alpha globin genotyping results. *This opens in a new window so you may need to scroll up to see it.* See Figure 8b. Use this box to type in the alpha globin genotype using traditional legacy nomenclature.
- In order to enter the relevant Greek letter, you must click the “ α ” button (Copy and Paste is not possible). In order to make any of the text superscript, click the “Superscript” button and then type the text that you wish to make superscript. The cursor will automatically sit in between the “^{” and “}”. Any text written in between these codes will appear as superscripted in the reported genotype. You will see a preview of the genotype in the box below. Click the “Enter Result” button to save the genotype for submission (Figure 8b).

The screenshot shows a web interface for Alpha Globin Results. At the top, there are navigation tabs: Instructions, Specimen Quality, Alpha Globin Results (selected), Beta Globin Results, Interpretation, Recommendations, and Technical Limitations. Below this is a table with columns for 'Test Not Performed' and 'Test Not Performed' for samples 2302DN1 and 2302DN2. The table lists various testing methods with checkboxes indicating whether they were performed. Below the table, there are two large input boxes for 'Alpha genotype detected:' for samples 2302DN1 and 2302DN2. Each box has an 'Edit Genotype Result' button. At the bottom right, there are 'Save' and 'Submit' buttons.

	Test Not Performed	Test Not Performed
	2302DN1	2302DN2
Alpha thalassaemia analysis	<input type="checkbox"/>	<input type="checkbox"/>
Sanger Sequencing	<input type="checkbox"/>	<input type="checkbox"/>
Next Generation Sequencing	<input type="checkbox"/>	<input type="checkbox"/>
Pyrosequencing	<input type="checkbox"/>	<input type="checkbox"/>
Multiplex GAP PCR	<input type="checkbox"/>	<input type="checkbox"/>
Multiplex ligation-dependent probe amplification (MLPA)	<input type="checkbox"/>	<input type="checkbox"/>
Vienna Labs Strip Assay	<input type="checkbox"/>	<input type="checkbox"/>
Real-time PCR	<input type="checkbox"/>	<input type="checkbox"/>
PCR + Reverse Hybridisation	<input type="checkbox"/>	<input type="checkbox"/>
Denaturing gradient gel electrophoresis (DGGE)	<input type="checkbox"/>	<input type="checkbox"/>
Restriction Digest	<input type="checkbox"/>	<input type="checkbox"/>
Reverse Dot Blot	<input type="checkbox"/>	<input type="checkbox"/>
Other method - please specify	<input type="text"/>	<input type="text"/>

Alpha genotype detected:

2302DN1:

2302DN2:

Buttons: Edit Genotype Result, Edit Genotype Result, Save, Submit

Figure 8a

The screenshot shows a dialog box titled 'ALPHA GENOTYPE RESULT FOR 2302DN1'. It contains instructions on how to enter the genotype. A green button with the Greek symbol α is shown. Below it, a text box contains the genotype: -α^{3.7}/--SEA. A yellow callout box points to this text box with the text: 'Enter the genotype in this box using the alpha symbol and Superscript buttons when required'. Below this, there is a 'Superscript' button. Another text box shows a preview of the genotype: -α^{3.7}/--SEA. A yellow callout box points to this preview with the text: 'A preview of the genotype will be shown in this box and is what will be submitted when you click the "Enter Result" button'. At the bottom, there are 'Enter Result' and 'Close' buttons.

ALPHA GENOTYPE RESULT FOR 2302DN1

Click on the alpha symbol below to enter

α

-α^{3.7}/--SEA

Please note: Copying and Pasting Alpha and Beta (Greek)symbols are not supported. Use the button provided to enter the applicable symbol/s

Enter the genotype in this box using the alpha symbol and Superscript buttons when required

Click on the Superscript button below to enter values

Superscript

-α^{3.7}/--SEA

A preview of the genotype will be shown in this box and is what will be submitted when you click the "Enter Result" button

Buttons: Enter Result, Close

Figure 8b

- Once the genotype has been entered it will appear in the "Alpha genotype detected:" box (Figure 8a).

3.3 Beta globin results

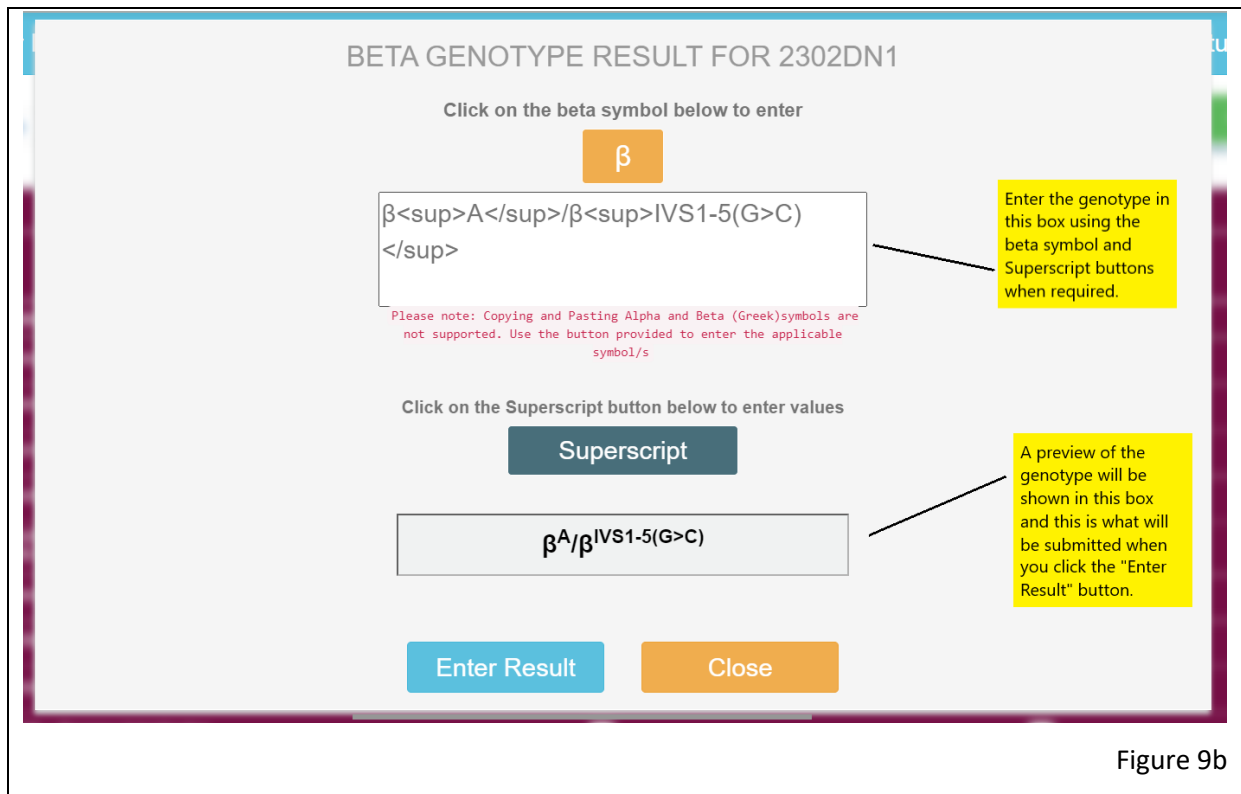
If you are registered for beta mutations or full participation, the next tab you see will be “Beta globin results” (Figure 9).

- If you were unable to perform beta globin testing, but you are registered for it, please tick the “test not performed” box (figure 9a).
- Please indicate which methods were used for beta globin genotyping on each sample by ticking the relevant boxes. If you used a method that is not listed, please give details in the comment box provided (figure 9a).

The form displays a table for 'Beta thalassaemia analysis' with columns for '2302DN1' and '2302DN2'. Each column has a 'Test Not Performed' checkbox. Below the table is a list of genotyping methods with checkboxes: Sanger Sequencing, Next Generation Sequencing, Pyrosequencing, Multiplex GAP PCR, Multiplex ligation-dependent probe amplification (MLPA), Vienna Labs Strip Assay, ARMS-PCR, Real-time PCR, PCR + Reverse Hybridisation, Denaturing gradient gel electrophoresis (DGGE), Restriction Digest, and Reverse Dot Blot. An 'Other method - please specify' section has two text input boxes. Below the table, there are sections for 'Beta genotype detected:' and 'Your HGVS nomenclature result'. Each section has two input boxes for '2302DN1' and '2302DN2', each with an 'Edit Genotype Result' or 'Edit HGVS Result' button and a question mark icon. At the bottom right, there are 'Save' and 'Submit' buttons.

Figure 9a

- Click on the “Edit Genotype Result” box to enter your beta globin genotyping results. This opens in a new window so you may need to scroll up to see it. See Figure 9b. Use this box to type in the beta globin genotype using traditional legacy nomenclature.



- Click on the "Edit HGVS result" button to enter your genotype using HGVS nomenclature. The same principles apply here, as shown in Figure 9b.
- Once the genotypes have been entered, they will appear in the "Beta genotype detected:" boxes (Figure 9a).

3.4 Interpretation

Use this tab to provide an interpretation of the genotype detected. The genotypes entered on the previous pages will be shown here (this cannot be edited unless you go back to the previous tab to do so).

- Use the box underneath the displayed genotype to enter a phenotype (Figure 10).
- Use the Conclusions box to write your overall conclusion of a diagnosis for this patient. *Please note, text can be copy and pasted into this box, however symbols and formatting such as superscript/subscript will not be supported.*

Instructions Specimen Quality Alpha Globin Results Beta Globin Results **Interpretation** Recommendations Technical Limitations

Date last saved: 03:19PM Wed 31-05-2023

Interpretation

Alpha Globin Genotyping:

	2302DN1	2302DN2
Alpha globin genotype	-α ^{3.7} /αα	
Alpha globin phenotype	Alpha plus thalassaemia carrier	

Beta Globin Genotyping:

	2302DN1	2302DN2
Beta globin genotype	β ^A β ^E	
Beta globin phenotype	Hb E carrier	

Conclusion

Please use the boxes below to write your overall conclusion for this patient taking into consideration both the alpha and beta genotyping results and any relevant clinical diagnosis.

	2302DN1	2302DN2
Conclusion		

Please note: Copying and Pasting Alpha and Beta (Greek)symbols are not supported.

Save Submit

Figure 10

3.5 Recommendations

Use this tab to make recommendations for the patient based on the diagnosis made from the genotype. Select up to 3 from the list provided (Figure 11).

UK NEQAS
Haemoglobinopathies and Iron Status

PRN: 20028 Closing Date: July 24th 2023
Survey Number: 2302DN Status: Open

Instructions Specimen Quality Alpha Globin Results Beta Globin Results Interpretation **Recommendations** Technical Limitations

Date last saved: 03:19PM Wed 31-05-2023

Recommendations

2302DN1	2302DN2
Select Recommendation	Select Recommendation
Select Recommendation	Select Recommendation
Select Recommendation	Select Recommendation
Select Recommendation	Select Recommendation

Clear Selections for 2302DN1

Save Submit

Select Recommendation

- 911-Testing of the baby's biological father is recommended
- 912-Reproductive (genetic) counselling is recommended
- 913-Parental testing indicated
- 914-Parental and/or family testing is recommended
- 915-Further molecular testing is recommended due to the method limitations of this laboratory
- 916-Information on prenatal diagnosis could be offered, according to local practice
- 917-Referral to a Clinical Haematologist is recommended
- 918-Iron studies are recommended
- 919-No further action is recommended on the basis of these results

Figure 11

3.6 Technical Limitations

- Use this tab to tell us about any additional information about the methods used such as any known limitations of the assay, or any technical failures encountered during testing.
- The miscellaneous comments box can be used to provide us with any additional comments to do with this survey that were not possible to enter on previous pages. See Figure 12.

Figure 12

3.7 Laboratory report

Participants are encouraged to submit a copy of their local laboratory report to support the results submission. Having a copy of this report helps during performance assessment as it shows the participant's laboratory testing and reporting format.

Figure 13

3.8 Save and Submit

Once all the desired information has been completed on each tab, the results can be submitted using the green "Submit" button.

If you wish to save progress without submitting, click the blue "Save" button. The information entered so far will be saved and the user can logoff and return later to submit.

Once the results have been submitted, the data cannot be edited and the page will become locked.