

Centers for Disease Control and
Prevention (CDC)

National Center for Environmental Health
(NCEH)

Division of Laboratory Sciences (DLS)

**NEWBORN SCREENING AND
MOLECULAR BIOLOGY BRANCH
(NSMBB)**

**NEWBORN SCREENING QUALITY
ASSURANCE PROGRAM (NSQAP)
PORTAL**

**UDOT PROFICIENCY TESTING
PANEL USER GUIDE**

January 2022

Table of Contents

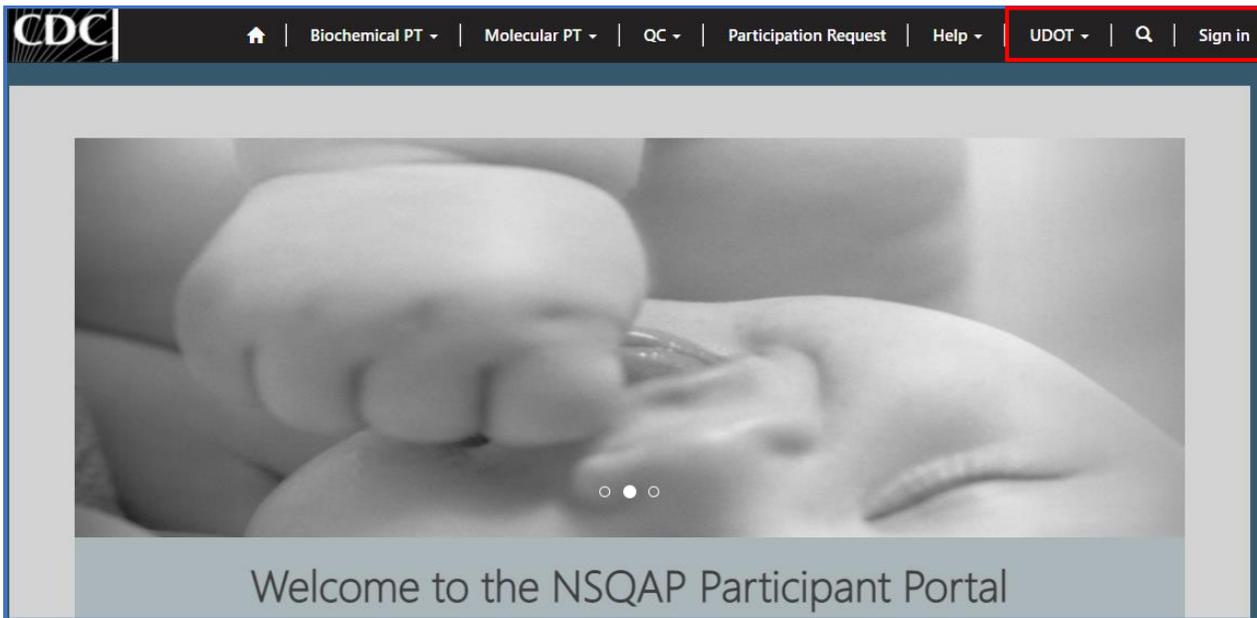
1. UDOT Introduction	2
2. UDOT Program Navigation	2
2.1 UDOT Information Page	2
2.2 UDOT Analyte Selection	4
3. UDOT Data Entry for Abnormal Analytes.....	12
3.1 UDOT Data Entry.....	12
4. UDOT Data Entry Review and Submission	18
4.1 Data Entry Review.....	18
4.2 Data Submission	19

1. UDOT Introduction

The UDOT proficiency testing challenge is a unique component of the Newborn Screening Quality Assurance Program (NSQAP) utilizing a panel of dried blood spot (DBS) specimens that enter the testing scheme in a manner similar to actual newborn screening specimens. For each specimen, participating laboratories must assay all analytes on their chosen test panel. This user guide describes to steps to enter UDOT results. Only abnormal analytes should be reported for the corresponding specimen number.

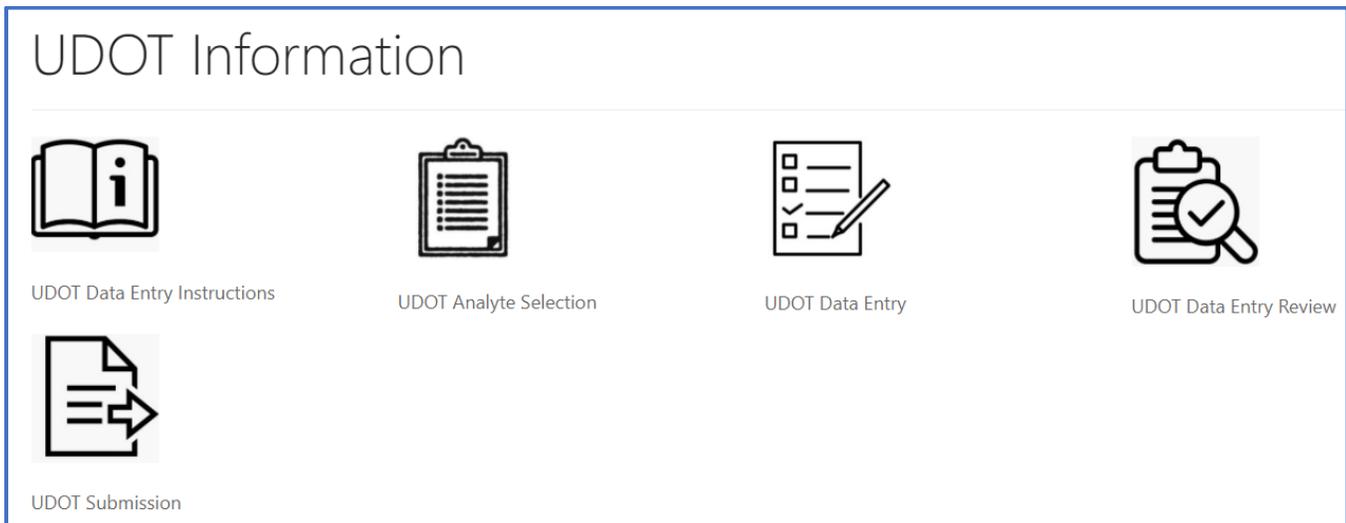
2. UDOT Program Navigation

The UDOT Program section of the NSQAP Portal can be accessed by clicking **'UDOT'** from the menu bar. Remember to sign in first.

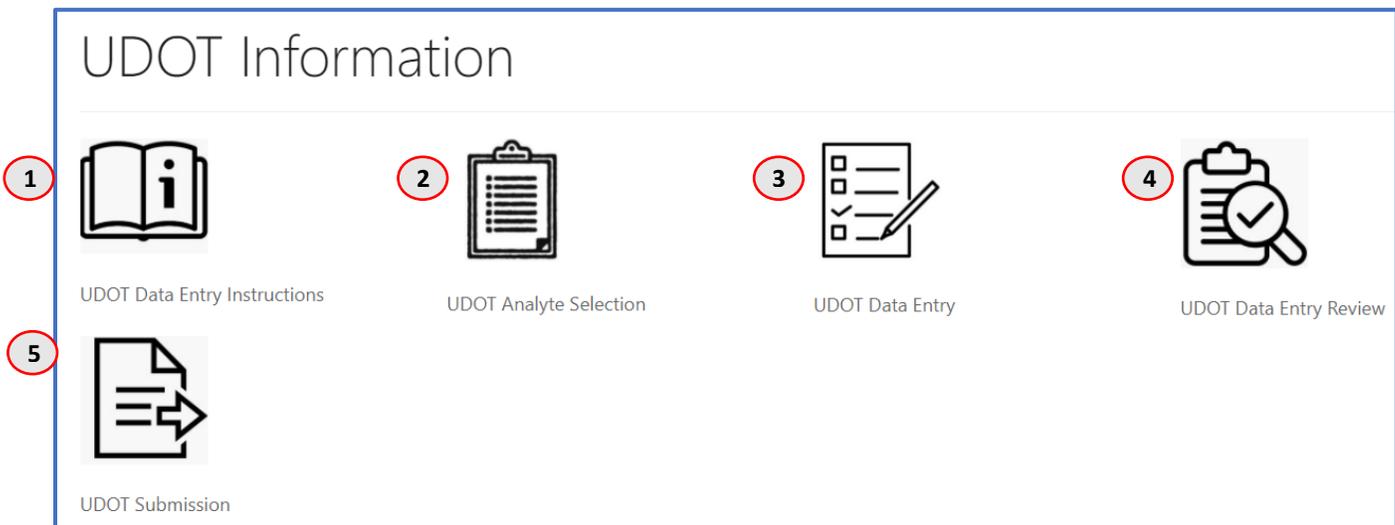


2.1 UDOT Information Page

1. Clicking the **'UDOT'** button at the top of the page on the toolbar will take you to the home page and resource for all UDOT PT related activities.



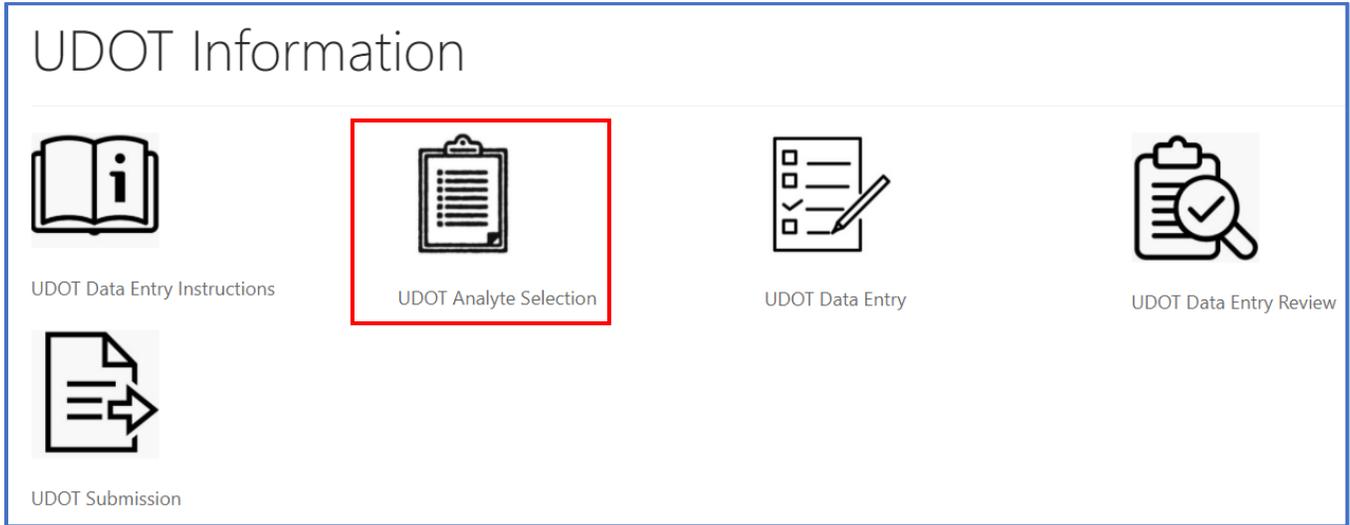
2. The UDOT Information homepage contains several icons that are used to navigate to the various UDOT PT sections within the NSQAP Portal.



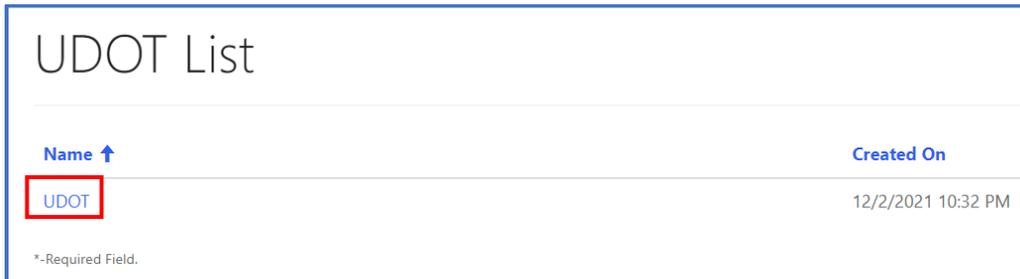
1. **UDOT Data Entry Instructions** – Downloadable instructions for completing UDOT PT data entry in the NSQAP Portal.
2. **UDOT Analyte Selection** – Page for setting up the portal for UDOT PT data entry.
3. **UDOT Data Entry** – Page for entering UDOT PT program data.
4. **UDOT Data Entry Review** – Page for reviewing UDOT PT program data.
5. **UDOT Submission** – Page for submitting UDOT PT program data.

2.2 UDOT Analyte Selection

1. Click on the 'UDOT Analyte Selection' button in the 'UDOT Information' page.



2. Click the 'UDOT' program hyperlink to begin analyte selection.



3. Use the large '+' buttons on the right side of the grid to expand analytes under each category.

Home > UDOT Analyte Selection

UDOT Analyte Selection

1. Choose Analytes for which your laboratory would like to be evaluated by checking the appropriate box under the Evaluated Analyte group.
2. Enter the Method for those analytes in the columns provided.
3. If there is no cutoff, leave the Cutoff Value field blank.

Endocrine and Other Analytes	
Amino Acids	
Acylcarnitines	
ALD	

[Save](#)

*-Required Field.

- Once expanded, the Analyte and Method Selection page will appear for all reportable analytes within the UDOT program. Select the analytes for which data will be reported. Click the check box next to the analyte(s). Repeat the same steps for all categories (Endocrine and Other Analytes, Amino Acids, Acylcarnitines, ALD).

UDOT Analyte Selection

1. Choose Analytes for which your laboratory would like to be evaluated by checking the appropriate box under the Evaluated Analyte group.
 2. Enter the Method for those analytes in the columns provided.
 3. If there is no cutoff, leave the Cutoff Value field blank.

Endocrine and Other Analytes -

<input type="checkbox"/> Thyroxine (T4)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (µg/dL serum) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Thyroid-Stimulating Hormone (TSH)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (µIU/mL serum) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> 17α-Hydroxyprogesterone (17OHP)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (ng/mL serum) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Total Galactose(TGal)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (mg/dL blood) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Biotinidase Deficiency (BIOT)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (see method) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Galactose-1-Phosphate Uridyltransferase Deficiency (GALT)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (see method) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Immunoreactive Trypsinogen (IRT)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (ng/mL blood) <input style="width: 90%;" type="text" value=""/>

Amino Acids +

Acylcarnitines +

ALD +

*-Required Field.

Note: Method will be required once an analyte is selected by checking the box to the left of the analyte. A red asterisk (*) will appear next to the Method after its corresponding analyte is selected.

- Select the method to be used for each analyte tested. Click the **'Magnifying Glass'** icon on the **'Method'** field for that specific analyte.

UDOT Analyte Selection

1. Choose Analytes for which your laboratory would like to be evaluated by checking the appropriate box under the Evaluated Analyte group.
 2. Enter the Method for those analytes in the columns provided.
 3. If there is no cutoff, leave the Cutoff Value field blank.

Endocrine and Other Analytes -

<input type="checkbox"/> Thyroxine (T4)	Method <input style="width: 90%; height: 20px;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid blue; border-radius: 50%; text-align: center; font-size: 10px; color: blue;" type="button" value="Q"/>	Cutoff (µg/dL serum) <input style="width: 95%; height: 25px;" type="text"/>
<input type="checkbox"/> Thyroid-Stimulating Hormone (TSH)	Method <input style="width: 90%; height: 20px;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid blue; border-radius: 50%; text-align: center; font-size: 10px; color: blue;" type="button" value="Q"/>	Cutoff (µIU/mL serum) <input style="width: 95%; height: 25px;" type="text"/>
<input type="checkbox"/> 17α-Hydroxyprogesterone (17OHP)	Method <input style="width: 90%; height: 20px;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid blue; border-radius: 50%; text-align: center; font-size: 10px; color: blue;" type="button" value="Q"/>	Cutoff (ng/mL serum) <input style="width: 95%; height: 25px;" type="text"/>
<input type="checkbox"/> Total Galactose(TGal)	Method <input style="width: 90%; height: 20px;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid blue; border-radius: 50%; text-align: center; font-size: 10px; color: blue;" type="button" value="Q"/>	Cutoff (mg/dL blood) <input style="width: 95%; height: 25px;" type="text"/>
<input type="checkbox"/> Biotinidase Deficiency (BIOT)	Method <input style="width: 90%; height: 20px;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid blue; border-radius: 50%; text-align: center; font-size: 10px; color: blue;" type="button" value="Q"/>	Cutoff (see method) <input style="width: 95%; height: 25px;" type="text"/>
<input type="checkbox"/> Galactose-1-Phosphate Uridyltransferase Deficiency (GALT)	Method <input style="width: 90%; height: 20px;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid blue; border-radius: 50%; text-align: center; font-size: 10px; color: blue;" type="button" value="Q"/>	Cutoff (see method) <input style="width: 95%; height: 25px;" type="text"/>
<input type="checkbox"/> Immunoreactive Trypsinogen (IRT)	Method <input style="width: 90%; height: 20px;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid blue; border-radius: 50%; text-align: center; font-size: 10px; color: blue;" type="button" value="Q"/>	Cutoff (ng/mL blood) <input style="width: 95%; height: 25px;" type="text"/>

Amino Acids +

Acylcarnitines +

ALD +

*-Required Field.

- A new window will appear listing all methods for the analyte. To select a method, click on the method, and the row will highlight with a check mark on the left side. Click the **'Select'** button at the bottom of the window to select the method for the analyte.

The screenshot shows a window titled "Lookup records" with a search bar at the top right. Below the search bar is a list of methods with checkboxes on the left. The method "GSP T4 Neonatal PerkinElmer" is selected, indicated by a checkmark and a red highlight box around the row. At the bottom of the window, there are three buttons: "Select" (highlighted with a red border), "Cancel", and "Remove value".

Method Name ↑
<input type="checkbox"/> AutoDELFA [®] Neonatal T4 PerkinElmer
<input type="checkbox"/> DELFIA [®] Neonatal T4 PerkinElmer
<input checked="" type="checkbox"/> GSP [®] T4 Neonatal PerkinElmer
<input type="checkbox"/> NeoMAP [®] T4 Interscientifica
<input type="checkbox"/> Other

- If a method has been selected for an individual analyte, it will appear in the **'Method'** field for the selected analyte only.

The screenshot shows a window titled "Endocrine and Other Analytes" with a list of analytes. The "Thyroxine (T4)" analyte is selected (checkbox checked). For this analyte, the "Method" field is populated with "GSP T4 Neonatal" and has a search icon. The "Cutoff (µg/dL serum)" field is empty. Other analytes, "Thyroid-Stimulating Hormone (TSH)" and "17α-Hydroxyprogesterone (17OHP)", have empty "Method" and "Cutoff" fields.

Analyte	Method	Cutoff
<input checked="" type="checkbox"/> Thyroxine (T4)	GSP T4 Neonatal	(µg/dL serum)
<input type="checkbox"/> Thyroid-Stimulating Hormone (TSH)		(µIU/mL serum)
<input type="checkbox"/> 17α-Hydroxyprogesterone (17OHP)		(ng/mL serum)

- If the method for testing is not shown in the provided list, click the **'Other'** option, then the **'Select'** button.

Lookup records
✕

✓	Method Name ↑
<input type="checkbox"/>	AutoDELFIATM Neonatal T4 PerkinElmer
<input type="checkbox"/>	DELFIATM Neonatal T4 PerkinElmer
<input type="checkbox"/>	GSP® T4 Neonatal PerkinElmer
<input type="checkbox"/>	NeoMAP® T4 Interscientifica
<input checked="" type="checkbox"/>	Other

- If **'Other'** method is selected, type the name of the **'Other'** Method in the field.

Endocrine and Other Analytes
—

<input checked="" type="checkbox"/> Thyroxine (T4)	Method * <input style="width: 100%; border: 1px solid #0070C0; padding: 2px 5px;" type="text" value="Other"/> <input style="width: 20px; height: 20px; border: 1px solid #0070C0; border-radius: 3px; margin-left: 5px;" type="button" value="✕"/> <input style="width: 20px; height: 20px; border: 1px solid #0070C0; border-radius: 3px; margin-left: 5px;" type="button" value="Q"/>	Cutoff (µg/dL serum) <input style="width: 100%; height: 25px;" type="text"/>	Other * <input style="width: 100%; height: 25px; border: 1px solid red;" type="text"/>
<input type="checkbox"/> Thyroid-Stimulating Hormone (TSH)	Method <input style="width: 100%; border: 1px solid #0070C0; padding: 2px 5px;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid #0070C0; border-radius: 3px; margin-left: 5px;" type="button" value="Q"/>	Cutoff (µIU/mL serum) <input style="width: 100%; height: 25px;" type="text"/>	
<input type="checkbox"/> 17α-Hydroxyprogesterone (17OHP)	Method <input style="width: 100%; border: 1px solid #0070C0; padding: 2px 5px;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid #0070C0; border-radius: 3px; margin-left: 5px;" type="button" value="Q"/>	Cutoff (ng/mL serum) <input style="width: 100%; height: 25px;" type="text"/>	

10. Enter the cutoff value for each analyte in the 'Cutoff' field.

UDOT Analyte Selection

1. Choose Analytes for which your laboratory would like to be evaluated by checking the appropriate box under the Evaluated Analyte group.
 2. Enter the Method for those analytes in the columns provided.
 3. If there is no cutoff, leave the Cutoff Value field blank.

Endocrine and Other Analytes -

<input type="checkbox"/> Thyroxine (T4)	Method <input style="width: 90%;" type="text"/> <input style="width: 5%; text-align: center; border: 1px solid #0056b3; border-radius: 3px; background-color: #e6f2ff;" type="button" value="Q"/>	Cutoff (µg/dL serum) <input style="width: 95%;" type="text"/>
<input type="checkbox"/> Thyroid-Stimulating Hormone (TSH)	Method <input style="width: 90%;" type="text"/> <input style="width: 5%; text-align: center; border: 1px solid #0056b3; border-radius: 3px; background-color: #e6f2ff;" type="button" value="Q"/>	Cutoff (µIU/mL serum) <input style="width: 95%;" type="text"/>
<input type="checkbox"/> 17α-Hydroxyprogesterone (17OHP)	Method <input style="width: 90%;" type="text"/> <input style="width: 5%; text-align: center; border: 1px solid #0056b3; border-radius: 3px; background-color: #e6f2ff;" type="button" value="Q"/>	Cutoff (ng/mL serum) <input style="width: 95%;" type="text"/>
<input type="checkbox"/> Total Galactose(TGal)	Method <input style="width: 90%;" type="text"/> <input style="width: 5%; text-align: center; border: 1px solid #0056b3; border-radius: 3px; background-color: #e6f2ff;" type="button" value="Q"/>	Cutoff (mg/dL blood) <input style="width: 95%;" type="text"/>
<input type="checkbox"/> Biotinidase Deficiency (BIOT)	Method <input style="width: 90%;" type="text"/> <input style="width: 5%; text-align: center; border: 1px solid #0056b3; border-radius: 3px; background-color: #e6f2ff;" type="button" value="Q"/>	Cutoff (see method) <input style="width: 95%;" type="text"/>
<input type="checkbox"/> Galactose-1-Phosphate Uridyltransferase Deficiency (GALT)	Method <input style="width: 90%;" type="text"/> <input style="width: 5%; text-align: center; border: 1px solid #0056b3; border-radius: 3px; background-color: #e6f2ff;" type="button" value="Q"/>	Cutoff (see method) <input style="width: 95%;" type="text"/>
<input type="checkbox"/> Immunoreactive Trypsinogen (IRT)	Method <input style="width: 90%;" type="text"/> <input style="width: 5%; text-align: center; border: 1px solid #0056b3; border-radius: 3px; background-color: #e6f2ff;" type="button" value="Q"/>	Cutoff (ng/mL blood) <input style="width: 95%;" type="text"/>

Amino Acids +

Acylcarnitines +

ALD +

*-Required Field.

11. Complete program setup for data entry by clicking the **'Save'** button at the bottom of the setup page.

UDOT Analyte Selection

1. Choose Analytes for which your laboratory would like to be evaluated by checking the appropriate box under the Evaluated Analyte group.
 2. Enter the Method for those analytes in the columns provided.
 3. If there is no cutoff, leave the Cutoff Value field blank.

Endocrine and Other Analytes -

<input type="checkbox"/> Thyroxine (T4)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (µg/dL serum) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Thyroid-Stimulating Hormone (TSH)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (µIU/mL serum) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> 17α-Hydroxyprogesterone (17OHP)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (ng/mL serum) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Total Galactose(TGal)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (mg/dL blood) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Biotinidase Deficiency (BIOT)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (see method) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Galactose-1-Phosphate Uridyltransferase Deficiency (GALT)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (see method) <input style="width: 90%;" type="text" value=""/>
<input type="checkbox"/> Immunoreactive Trypsinogen (IRT)	Method <input style="width: 90%;" type="text" value=""/>	Cutoff (ng/mL blood) <input style="width: 90%;" type="text" value=""/>

Amino Acids +

Acylcarnitines +

ALD +

*-Required Field.

Note: If the **'Save'** button is not selected, data will not be retained. Upon clicking **'Save'**, user will be directed to the **'UDOT Data Entry'** page.

3. UDOT Data Entry for Abnormal Analytes

3.1 UDOT Data Entry

1. To enter data for the UDOT program, click the **'UDOT'** button at the top of the page on the toolbar and click the **'UDOT Data Entry'** option. Only report analytes that are outside of normal limits. More than one analyte may be reported for a specimen.

UDOT Information



UDOT Data Entry Instructions



UDOT Analyte Selection



UDOT Data Entry



UDOT Data Entry Review



UDOT Submission

*-Required Field.

2. The specimen list page will appear.

Home > UDOT Specimens

UDOT Specimens

Select the specimen below to report "outside normal limits" results for analytes your laboratory evaluates

Name ↑	Created On
20222016001	11/16/2021 10:19 AM
20222016002	11/16/2021 10:19 AM
20222016003	11/16/2021 10:19 AM
20222016004	11/16/2021 10:19 AM
20222016005	11/16/2021 10:19 AM
20222016006	11/16/2021 10:19 AM
20222016007	11/16/2021 10:20 AM
20222016008	11/16/2021 10:20 AM
20222016009	11/16/2021 10:20 AM
20222016010	11/16/2021 10:20 AM

- To navigate to the specimen data entry page, click the **'Specimen Number'** hyperlink.

UDOT Specimens

Select the specimen below to report "outside normal limits" results for analytes your laboratory evaluates

Name ↑	Created On
20222016001	11/16/2021 10:19 AM
20222016002	11/16/2021 10:19 AM
20222016003	11/16/2021 10:19 AM
20222016004	11/16/2021 10:19 AM

- Add analytes to each specimen by clicking the **'Add Analyte'** button.

UDOT Data Entry

Quantitative analytes, enter numerical results
 Qualitative analytes, select "Abnormal" in the Other Result field
 For <LOD, select "<LOD" in the Other Result field

Specimen Number *
 20222016007

[Add Analyte](#)

Specimen ↑	Analyte	Result	Comments	Created On
There are no records to display.				

- A pop-up will appear, click OK. Do not enter an analyte more than once for the same specimen number. Duplicate analytes will not be accepted.

Do not enter an analyte more than once for the same specimen number. Duplicate analytes will not be accepted

[OK](#)

- A new window will appear to select an analyte. Search for analyte by clicking on the magnifying glass.

The screenshot shows a form with the following fields:

- Specimen#**: A text input field containing a hyphen.
- Analyte**: A search input field with a magnifying glass icon, highlighted with a red box.
- Result**: A text input field.
- <LOD**: A dropdown menu currently set to "No".
- Comments**: A large text area for notes.
- Save**: A blue button at the bottom left.

- Click on the analyte and the row will highlight with a check mark on the left side. Click the **'Select'** button at the bottom of the window to select the analyte.

The screenshot shows a "Lookup records" window with a search bar and a table of results:

<input checked="" type="checkbox"/> Name	Created On
<input type="checkbox"/> 17OHP	11/8/2021 11:21 AM
<input type="checkbox"/> ARG	11/8/2021 11:21 AM
<input type="checkbox"/> BIOT	11/8/2021 11:21 AM
<input type="checkbox"/> C0(L)	11/8/2021 11:21 AM
<input checked="" type="checkbox"/> C10	11/8/2021 11:22 AM
<input type="checkbox"/> C10:1	11/8/2021 11:22 AM
<input type="checkbox"/> C10:2	11/8/2021 11:22 AM
<input type="checkbox"/>

At the bottom of the window, there is a pagination control showing page 1 of 4, and three buttons: **Select** (highlighted with a red box), **Cancel**, and **Remove value**.

- The selected analyte will now populate in the **'Analyte'** field. Enter either a quantitative result into the **'Result'** field or use the drop-down field to choose **'<LOD'**.

The screenshot shows a form with the following fields:

- Specimen#**: —
- Analyte**: C10 (with clear and search icons)
- Result**: (empty text box, highlighted with a red border)
- <LOD**: No (dropdown menu, highlighted with a red border)
- Comments**: (empty text area)
- Save**: (blue button)

- Click the **'Save'** button at the bottom of the page to save results.

The screenshot shows the same form as above, but with the **Save** button highlighted with a red border. Additionally, there is a **Delete?** section with radio buttons for **No** (selected) and **Yes**.

10. When the analyte has been saved, the specimen list page will update with the analyte record and when it was last saved.

Specimen ↑	Analyte	LOD	Result	Comments	Created On
20222016001	C6	No	1.24		12/29/2021 4:10 PM
20222016001	C8	No	1.57		12/29/2021 4:35 PM
20222016001	C10	No	1.10		1/3/2022 7:33 PM
20222016001	C10:1	No	0.98		1/4/2022 12:05 PM

11. To edit or delete a record, click on the specimen number of the analyte to edit.

Specimen#
—

Analyte
C10 ✕ 🔍

Result

<LOD
No ▼

Comments

Delete?
 No Yes

Save

Note: Once 'Yes' is selected for the Delete Option and the 'Save' button is clicked, the analyte will be permanently deleted from the specimen number.

12. To return to the UDOT Specimen List Page to add/edit analytes for other specimens, click on the **'Return to UDOT Specimen List Page'** hyperlink above **'Specimen Number'**

UDOT Data Entry

For Quantitative analytes, enter numerical results
For Qualitative analytes, "Abnormal" will be displayed in the Qualitative Result field
For <LOD, select "Yes" in the <LOD field

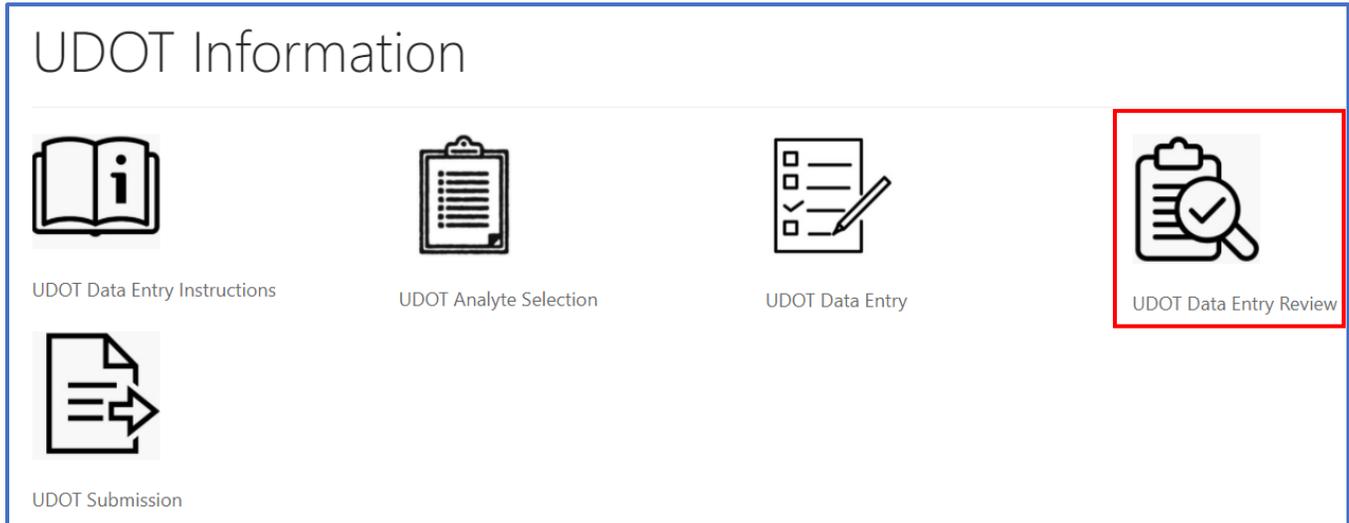
[Return to UDOT Specimen List Page](#)

Specimen Number *
20222016001

4. UDOT Data Entry Review and Submission

4.1 Data Entry Review

1. Click the **'UDOT'** button at the top of the page on the toolbar and click the **'UDOT Data Entry Review'** option.



2. The **'Summary of Reported UDOT Specimens'** will appear in an un-editable table. The summary can be downloaded to a MS Excel spreadsheet by clicking the **'Download'** button.

Summary of Reported UDOT Specimens

[Return to UDOT Specimen List Page](#)

Search

Specimen ↑	Analyte	LOD	Result	Comments	Created On
20222016001	C6	No	1.24		12/29/2021 4:10 PM
20222016001	C8	No	1.57		12/29/2021 4:35 PM
20222016001	C10	No	1.10		1/3/2022 7:33 PM
20222016001	C10:1	No	0.98		1/4/2022 12:05 PM
20222016002	BIOT	Yes		Abnormal	1/5/2022 9:48 AM

Note: Click on the **'Return to UDOT Specimen List Page'** hyperlink to return to the UDOT Data Entry page to make changes.

4.2 Data Submission

1. Click on the **'UDOT'** button at the top of the page on the toolbar and click on the **'UDOT Submission'** option.

UDOT Information



UDOT Data Entry Instructions



UDOT Analyte Selection



UDOT Data Entry



UDOT Data Entry Review



UDOT Submission

2. To submit data for the program, click on the **'Submit'** button at the bottom of the page.

UDOT Submission

IMPORTANT: By clicking Submit, you are submitting all of your *UDOT data* for the current event which will lock all records for editing. No changes can be made after this action.

Submit

3. Click the **'OK'** button on the submission prompt.

Submit
×

I attest that Proficiency Testing specimens were tested in the same manner as patient specimens.

Note: By clicking Submit, you are submitting all of your UDOT data for the current event which will lock all records for editing. No changes can be made after this action.

Ok

Cancel

4. The user will receive an email from NSQAPDMT stating that the UDOT results have been submitted and they are no longer able to edit or submit additional UDOT results for the event.

Note: After submission, the **UDOT Specimens** page will show 'There are no records to display.'

