

Kentucky Health
Information Exchange
(KHIE)

**Foodborne and
Waterborne Diseases
Case Report:**

**Hemolytic Uremic
Syndrome (HUS)**

Quick Reference Guide

May 2024

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1 Introduction

Overview

This training manual covers the unique functionalities for the Hemolytic Uremic Syndrome (HUS) condition in the Foodborne and Waterborne Diseases eICR Form in the ePartnerViewer. The HUS condition contains a unique *Blood Tests* section on the **Laboratory Information** screen. All other screens for the HUS condition follow the generic workflow for the Foodborne and Waterborne Diseases Case Report. For specific information about the Foodborne and Waterborne Diseases Case Report, please review the [Direct Data Entry for Case Reports: Foodborne and Waterborne Diseases User Guide](#).

Users with the *Manual Case Reporter* role can submit case reports from the ePartnerViewer by completing an online case report. The process generates a manual electronic initial case report (eICR) which is routed to the Kentucky Department for Public Health (KDPH). All examples and screenshots used in this guide are simulated with mock data; no Protected Health Information (PHI) is present.

Please Note: All screenshots shown throughout this document reflect how Users would interact with the ePartnerViewer while using a desktop or tablet device. While core functionality remains the same across multiple devices, interface components may vary in presentation.

Supported Web Browsers

Users must access the ePartnerViewer with a supported web browser. The ePartnerViewer is configured to support the following modern browsers on desktop, tablet, and mobile devices:

Desktop Browser Version	Mobile Browser Version
Microsoft Edge	
Version 44+	Version 40+
Google Chrome	
Version 70+	Version 70+
Mozilla Firefox	
Version 48+	Version 48+
Apple Safari	
Version 9+	iOS 11+

Please Note: The ePartnerViewer does **not** support Microsoft Internet Explorer. To access the ePartnerViewer, Users must use a modern browser such as Google Chrome, Microsoft Edge, Apple Safari, or Mozilla Firefox.

Mobile Device Considerations

The ePartnerViewer is based on responsive design. This means it renders in the best format based on the user's device size. Responsive design applies to mobile, tablet, and desktop devices. Tablet devices in landscape display mode are considered desktop.

Accessing the ePartnerViewer

To access the ePartnerViewer, Users must meet the following specifications:

1. Users must be part of an organization with a signed Participation Agreement with KHIE.
2. Users are required to have a Kentucky Online Gateway (KOG) account.
3. Users are required to complete Multi-Factor Authentication (MFA).

Please Note: For specific information about creating a Kentucky Online Gateway (KOG) account and how to complete MFA, please review the [ePartnerViewer Login: Kentucky Online Gateway \(KOG\) and Okta Verify Multi-Factor Authentication \(MFA\) User Guide](#).

2 Laboratory Information

1. On the **Laboratory Information** screen, select the **appropriate answer** for the conditional question at the top: *Does the patient have a lab test?*
2. If **Yes** is selected, the subsequent lab-related fields on the screen are enabled.
3. Complete the **enabled mandatory fields** under the *Laboratory Information* section.

LABORATORY INFORMATION

Does the patient have a lab test?*

Laboratory Information

Laboratory Name*

Test Name*

Filler Order/Accession Number ⓘ

Specimen Source*

Test Result*

Test Result Date* Unknown

Specimen Collection Date* Unknown

Additional Information ⓘ

0/300 Characters

Please Note: If **No** or **Unknown** is selected, all subsequent fields on the screen are disabled.

Adding Multiple Tests

- 4. Click **Add Test** to log the details for multiple tests. This means that you can easily enter additional test details on the same patient.

Additional Information ⓘ
Test 1 details
14/300 Characters
+ Add Test
Save Previous Next

Please Note: When you click the **Add Test** button, at least one lab test section must be entered.

- To delete an additional lab test section, click the **Trash Bin Icon** located at the top right.

Additional Information ⓘ
Test 1 details
14/300 Characters
Laboratory Information ⓘ **Trash Bin Icon**
Laboratory Name*
Test Name*
Select...
If other, please specify: ⓘ
Filler Order/Accession Number ⓘ
Specimen Source*
Select...
If other, please specify: ⓘ
Test Result*
Select...
If other, please specify: ⓘ
Test Result Date
mm/dd/yyyy Unknown
Specimen Collection Date*
mm/dd/yyyy Unknown
Additional Information ⓘ
0/300 Characters
+ Add Test

Adding Blood Tests

The HUS Case Report captures blood tests for Erythrocytes, Hemoglobin, Platelets, and Creatinine.

5. Click any of the following buttons to add blood test information for the patient:

- **Add Erythrocytes** button
- **Add Hemoglobin** button
- **Add Platelets** button
- **Add Creatinine** button

Test Result Date* Unknown Specimen Collection Date* Unknown

Additional Information ⓘ

14/300 Characters

+ Add Test

Blood Tests

+ Add Erythrocytes

+ Add Hemoglobin

+ Add Platelets

+ Add Creatinine

Please Note: When you click the **Add Erythrocytes** button, **Add Hemoglobin** button, **Add Platelets** button, or **Add Creatinine** button, at least one blood test section must be entered.

Adding Erythrocytes

6. Click the **Add Erythrocytes** button to log the details for erythrocytes.

To delete a blood test section, click the **Trash Bin Icon** located at the top right.

7. Select the appropriate **Test Name** from the *Test Name* dropdown menu.

8. Enter the **Result** in the *Result* textbox.

Test Name*
Erythrocytes [# /volume] in Blood

Result*

Units*
Select...

9. Select the **Units** from the *Units* dropdown menu.

Result*
4.2

Reference Range*

+ Add Erythrocytes

Units*
Select...
x 10¹²/L
x 10⁶/mm³
x 10⁶/uL

10. Enter the **Reference Range** in the *Reference Range* textbox.

Test Name*
Erythrocytes [# /volume] in Blood

Result*
4.2

Reference Range*

Units*
x 10¹²/L

Test Result Date*
mm/dd/yyyy Unknown

11. Enter the **Test Result Date**.

- If the test result date is unknown, click the **Unknown** checkbox.

Test Name*
Erythrocytes [# /volume] in Blood

Result*
4.2


Reference Range*
4.2-5.4

Units*
x 10¹²/L

Test Result Date*
mm/dd/yyyy Unknown

Adding Hemoglobin

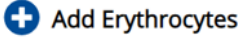
12. Click the **Add Hemoglobin** button to log the details for hemoglobin.

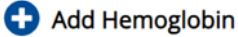
Erythrocytes 

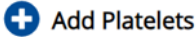
Test Name*
Erythrocytes [# /volume] in Blood

Result* 4.2 **Units*** x 10¹²/L


Reference Range* 4.2-5.4 **Test Result Date*** 04/01/2024 Unknown







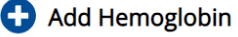
- To delete a *Hemoglobin* section, click the **Trash Bin Icon** located at the top right.

Hemoglobin 

Test Name*
Select...

Result* **Units*** Select...

Reference Range* **Test Result Date*** mm/dd/yyyy Unknown




Please Note: The *Hemoglobin* section follows the same workflow as the *Erythrocytes* section.

Adding Platelets

13. Click the **Add Platelets** button to log the details for platelets.

Blood Tests

Add Erythrocytes

Hemoglobin 

Test Name*
Select... | v

Result* Units*
Select... | v


Reference Range* Test Result Date*
mm/dd/yyyy Unknown

Add Hemoglobin

Add Platelets

Add Creatinine

- To delete a *Platelets* section, click the **Trash Bin Icon** located at the top right.

Platelets 

Test Name*
Select... | v

Result* Units*
Select... | v

Reference Range* Test Result Date*
mm/dd/yyyy Unknown

Add Platelets

Please Note: The *Platelets* section follows the same workflow as the *Erythrocytes* section.

Adding Creatinine

14. Click the **Add Creatinine** button to log the details for creatinine.

Blood Tests

Add Erythrocytes

Add Hemoglobin

Add Platelets

Add Creatinine

- To delete a *Creatinine* section, click the **Trash Bin Icon** located at the top right.

Creatinine

Test Name*

Result*
Units*


Reference Range*
Test Result Date* Unknown

Add Creatinine

Please Note: The *Creatinine* section follows the same workflow as the *Erythrocytes* section.

- 15. Click the **appropriate Add Erythrocytes** button, **Add Hemoglobin** button, **Add Platelets** button, or **Add Creatinine** button to log the details for multiple blood tests. This means that you can easily enter additional blood test details on the same patient.
- 16. Once the **Laboratory Information** screen is complete, click **Next** to proceed to the **Applicable Symptoms** screen.





Blood Tests

Erythrocytes 

Test Name*
Erythrocytes [# /volume] in Blood x | v

Result* Units* x | v

Reference Range* Test Result Date* Unknown

-  Add Erythrocytes
-  Add Hemoglobin
-  Add Platelets
-  Add Creatinine

3 Applicable Symptoms

1. On the **Applicable Symptoms** screen, select the appropriate answer for the conditional question at the top: *Were symptoms present during the course of illness?*

Please select applicable symptoms that the patient experienced during illness.

APPLICABLE SYMPTOMS	
Patient Information <input checked="" type="checkbox"/>	Were symptoms present during the course of illness?*
Laboratory Information <input checked="" type="checkbox"/>	<input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
Applicable Symptoms	Onset Date <input type="text" value="mm/dd/yyyy"/> <input type="checkbox"/> Unknown
Additional Information <input type="checkbox"/>	

2. If **Yes** is selected for the conditional question, the subsequent fields on the screen are enabled.

APPLICABLE SYMPTOMS	
Patient Information <input checked="" type="checkbox"/>	Were symptoms present during the course of illness?*
Laboratory Information <input checked="" type="checkbox"/>	<input checked="" type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
Applicable Symptoms	Onset Date* <input type="text" value="mm/dd/yyyy"/> <input type="checkbox"/> Unknown
Additional Information <input type="checkbox"/>	If symptomatic, which of the following did the patient experience during illness?
Hospitalization, ICU, & Death Information <input type="checkbox"/>	Fever*
Vaccination History <input type="checkbox"/>	<input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
Treatment Information <input type="checkbox"/>	If yes, please enter the highest temperature. <input type="text"/>
Additional Comments <input type="checkbox"/>	Diarrhea (>3 loose stools/24hr period)*
Review & Submit <input type="checkbox"/>	<input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
	If yes, please enter number of days with diarrhea. <input type="text"/>
	Abdominal pain*
	<input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
	Altered mental status*
	<input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
	Chest Pain*
	<input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>

Please Note: If **No** is selected for the conditional question, all subsequent symptom fields are disabled and marked with **No**. If **Unknown** is selected for the conditional question, all subsequent symptom fields are disabled and marked as **Unknown**.

- 3. Enter the **Onset Date** for the symptoms.
 - If the onset date is unknown, click the **Unknown** checkbox.

APPLICABLE SYMPTOMS

Were symptoms present during the course of illness?*

Onset Date* ?

Unknown

March 2024

Su	Mo	Tu	We	Th	Fr	Sa
25	26	27	28	29	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

...ing did the patient experience during their illness?

...emperature: ?

...eriod)*

If yes, please enter the number of days with diarrhea: ?

- 4. To report whether the patient had a fever during the illness, select the **appropriate answer** for the field: *Fever*.

If symptomatic, which of the following did the patient experience during illness?

Fever*

If yes, please enter the highest temperature. ?

- If **Yes** is selected, the subsequent field is enabled. Enter the **patient's highest temperature** in the subsequent textbox: *If yes, please enter the highest temperature.*

If symptomatic, which of the following did the patient experience during illness?

Fever*

If yes, please enter the highest temperature.* ?

- 5. To report whether the patient had diarrhea during the illness, select the **appropriate answer** for the field: *Diarrhea (>3 loose stools/24hr period)*.

Diarrhea (>3 loose stools/24hr period)*

If yes, please enter the number of days with diarrhea. ?

- If **Yes** is selected, the subsequent field is enabled. Enter the **number of days with diarrhea** in the subsequent textbox: *If yes, please enter the number of days with diarrhea.*

Diarrhea (>3 loose stools/24hr period)*

If yes, please enter the number of days with diarrhea.* ?

- 6. Select the **appropriate answers** for the following fields to indicate the symptoms the patient experienced during illness:

Abdominal pain* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>	Low Platelet Count* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
Anemia* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>	Proteinuria* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
Bloody Diarrhea* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>	Renal failure* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
Burr cells present* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>	Schistocyte and/or helmet cells present* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
Decreased Urinary Output* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>	Serum creatinine raised* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>
Hematuria* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>	Was there a history of diarrheal illness preceding 3 weeks?* <input type="button" value="Yes"/> <input type="button" value="No"/> <input type="button" value="Unknown"/>

7. Select the **appropriate answers** for the field: *Was there a history of diarrheal illness preceding 3 weeks?*

Was there a history of diarrheal illness preceding 3 weeks?*

Yes No Unknown

If yes, please enter the onset date ?

mm/dd/yyyy Unknown

- If **Yes** is selected, the subsequent field is enabled. Enter the **onset date** in the subsequent textbox: *If yes, please enter the onset date.*
- If the onset date is unknown, click the **Unknown** checkbox.

Was there a history of diarrheal illness preceding 3 weeks?*

Yes No Unknown

If yes, please enter the onset date* ?

mm/dd/yyyy Unknown

8. To report additional symptoms not listed on the screen, select the **appropriate answer** for the field: *Did the patient have any other symptoms?*

Did the patient have any other symptoms?*

Yes No Unknown

- If **Yes** is selected, the subsequent field is enabled. Enter the **patient’s other symptoms** in the subsequent textbox: *If yes, please specify.*

Did the patient have any other symptoms?*

Yes No Unknown

If yes, please specify:* ?

9. Once the **Applicable Symptoms** screen is complete, click **Next** to proceed to the **Additional Information** screen.

If yes, please specify.* ?

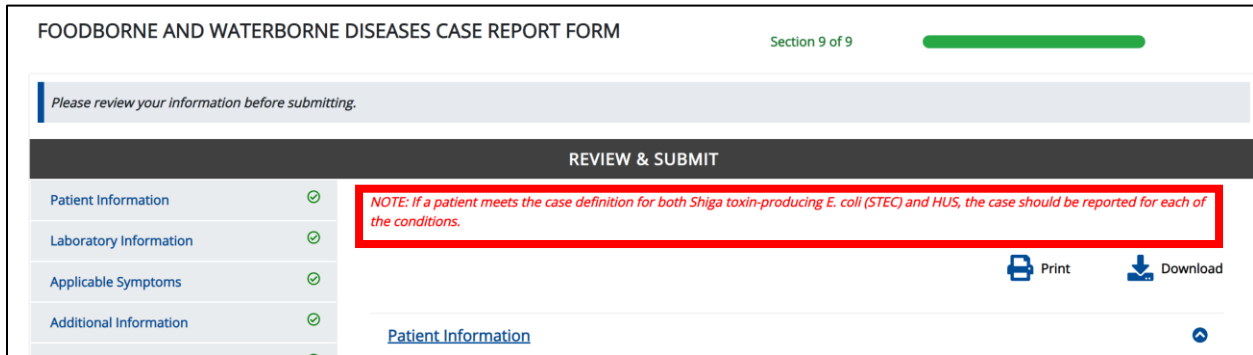
Other symptoms

Save Previous **Next**

4 Review and Submit

The **Review and Submit** screen displays a summary of the information you have entered. Prior to submitting the case report, review the information on this screen to verify its accuracy. You must click **Submit** to submit the case report form.

1. The following message displays at the top of the **Review and Submit** screen: *NOTE: If a patient meets the case definition for both Shiga toxin-producing E. coli (STEC) and HUS, the case should be reported for each of the conditions.*



Please Note: From this point forward, the workflow screens are the same as Foodborne and Waterborne Diseases Case Reports. For more information, please review the [Direct Data Entry for Case Reports: Foodborne and Waterborne Diseases User Guide](#).

4 Technical Support

Toll-Free Telephone Support

For questions and assistance regarding the ePartnerViewer, please call 1 (800) 633-6283.

Email Support

To submit questions or request support regarding the ePartnerViewer, please email KHIESupport@ky.gov.

Please Note: To seek assistance or log issues, you can use the **Support Tab** located in the blue navigation bar at the top of the screen in the ePartnerViewer.

