

## **GLIA DESCRIPTION AND INSTRUCTIONS FOR eGLIA**

### **GLIA Background**

The GuideLine Implementability Appraisal (GLIA) instrument identifies intrinsic barriers to implementation of a guideline. Implementation refers to that part of the guideline lifecycle in which systems are introduced to influence clinicians' behavior toward guideline adherence. Some guidelines have been found to be more difficult to put into practice than others. GLIA is intended to provide information about a guideline's implementability to:

- A guideline authoring group, which may decide to modify content to improve implementability
- Those individuals who choose guidelines for application within a health care delivery system, in which case, GLIA can be used to anticipate potential problems in implementation.

Implementability is an abstract construct, relating to a number of factors, some of which are intrinsic to the guideline itself—and therefore are under the control of the developers—and some of which are extrinsic. Extrinsic factors are largely site-specific and appraisal of them is beyond the scope of this instrument. GLIA emphasizes a consideration of primarily intrinsic factors, including:

- Executability (exactly what to do)
- Decidability (precisely under what conditions (e.g., age, gender, clinical findings, laboratory results) to do something)
- Validity (the degree to which the recommendation reflects the intent of the developer and the strength of evidence)
- Flexibility (the degree to which a recommendation permits interpretation and allows for alternatives in its execution)
- Effect on process of care (the degree to which the recommendation impacts upon the usual workflow in a typical care setting)
- Measurability (the degree to which the guideline identifies markers or endpoints to track the effects of implementation of this recommendation)
- Novelty/innovation (the degree to which the recommendation proposes behaviors considered unconventional by clinicians or patients)
- Computability (the ease with which a recommendation can be operationalized in an electronic information system) is only applicable when an electronic implementation is planned

It is not uncommon for a single guideline to contain recommendations that vary widely in their implementability. The unit of implementation, therefore, is the individual recommendation, not the entire guideline.

## Definitions

A *conditional recommendation* states one or more actions to be performed for members of the target population IF they fulfill one or more stated conditions.

*Conditions* may include patient descriptors (e.g., age, gender), clinical observations, laboratory results, etc.

Example: If age is greater than 65, the clinician should screen for dementia. In this example, the condition is “age is greater than 65.” The action is “screening for dementia.”

Both and actions may be combined using AND and OR connectors to create complex logical statements.

Example: When the patient manifests dyspnea or tachycardia, treat with a diuretic and monitor vital signs hourly.

An *imperative recommendation* states one or more actions to be performed for all members of the target population, i.e., the patients eligible for guideline advice.

Example: Assess whether the patient is experiencing pain.

The dimension of *executability* (questions 10-11) focuses our attention on the recommended action. These questions apply to both imperative and conditional recommendations, as both types of recommendation must contain an action.

The dimension of *decidability* (questions 12-14) focuses our attention on the conditions of a conditional recommendation. These questions do not apply to an imperative recommendation.

## Using GLIA

GLIA questions 1 through 9—assessing the GLOBAL dimension—relate to the guideline document as a whole. The remaining dimensions of GLIA consider recommendations individually.

GLIA users should prepare to use the instrument by selecting those recommendations for which implementation is planned. Note that individual recommendations may contain imperative and/or conditional components.

Some guideline developers issue statements of fact that fail to recommend an action. Such statements are difficult to operationalize and fail the executability criteria in GLIA.

## Appraisal

It is useful for two or more people to independently score each recommendation. We suggest at least one subject matter expert and one implementation expert should participate.

Appraisers should answer each question with one of the following responses:

- Y The recommendation meets this criterion fully.  
N The recommendation does not meet this criterion.  
? The rater is unable to address this question because of insufficient knowledge or experience in this area  
N/A The criterion is not applicable to this recommendation

*When any GLIA question is answered as 'N', the reason(s) it fails the criterion should be recorded in the comment section.*

## **Reconciliation**

Appraisers should discuss divergent responses to a question in an effort to achieve consensus.

Rating teams should include sufficient expertise to resolve any “?” scores. Questions that are ultimately agreed to be answered as ‘N’ represent barriers to successful implementation.

## **Interpretation of Results**

An examination of the barriers recorded on the summary report should provide an understanding of impediments to implementation of the guideline statement.

A conditional recommendation that fails any decidability or executability criterion will be impossible to implement as stated.


Likewise, an imperative that fails any executability criterion will not be implementable.

Developers may choose to make modifications to the guideline document before disseminating the guideline. Implementers can target their efforts toward addressing identified barriers.

A paper version of the GLIA instrument is also available. eGLIA is a web-version of the instrument that facilitates collaboration and report writing.

## New to eGLIA?

To use eGLIA, new users will need to register by entering their email address and leaving the password field blank.



**Please enter your email address and password for verification**

Email address:

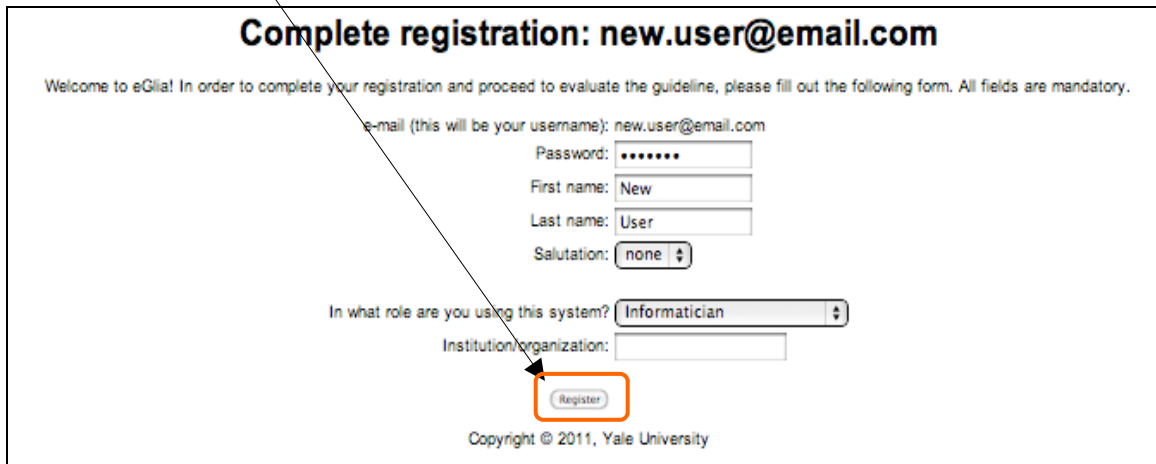
To register, enter your email address and leave password blank.

Password:

☐ Please check if you forgot your password

**Figure 1: New User Registration**

When the registration screen opens, enter a password and complete the brief registration form and click Register button.



**Complete registration: new.user@email.com**

Welcome to eGila! In order to complete your registration and proceed to evaluate the guideline, please fill out the following form. All fields are mandatory.

e-mail (this will be your username): new.user@email.com

Password:

First name:

Last name:

Salutation:

In what role are you using this system?

Institution/organization:

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**Figure 2: Complete New User Registration**

The new user home page opens. Instructions on using eGLIA are available by clicking on the Instructions button.

Project Name	Appraiser	Administrator
Project Test	X	
New Project	X	

Appraise

Reconcile/Report

**Figure 3: New User Home Page**

If you have been invited to appraise a project via the same email you used to register to eGLIA, that project is displayed in the “Project Name” section with your role marked as “Appraiser”.

## Using eGLIA

### **Roles: Users of eGLIA may assume either (or both) of two roles**

*Administrator:* The individual responsible for starting a project in eGLIA, inviting appraisers, reconciling responses and preparing a report.

*Appraiser:* Individuals evaluating a guideline's implementability.

### **Activities:**

*Appraise*

*Report*

*New Project*

*Edit Project*

### ***Appraise***

1. Login: Login to eGLIA with your email and password that you used to register for eGLIA. Click the "Enter" button to proceed to your home page.

**eGLIA**

Please enter your email address and password for verification

Email address:

To register, enter your email address and leave password blank.

Password:

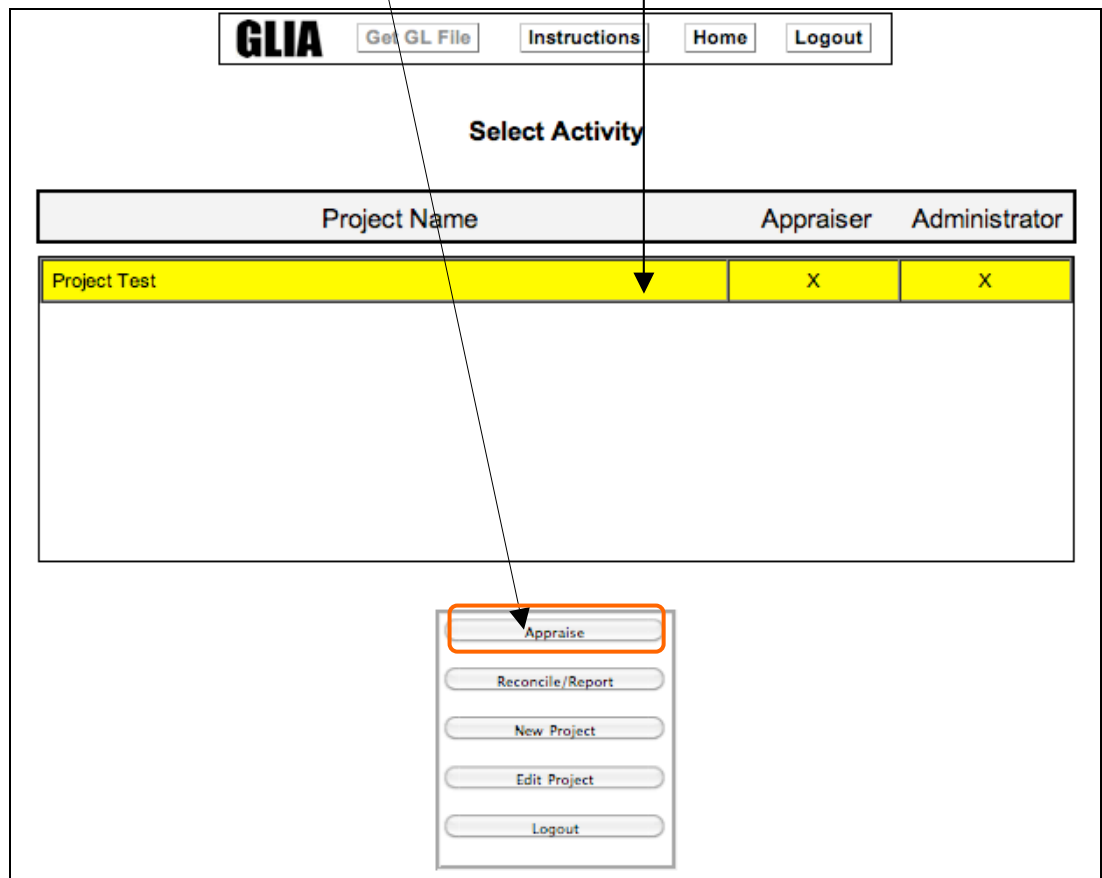
☐ Please check if you forgot your password

[eGLIA instructions](#)

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**Figure 4: eGLIA login**

2. User Home Page: From the home page, select the guideline project you wish to appraise, and select the “Appraise” activity from this page.



**Figure 5: User home page**



3. Appraisal Matrix: The next screen displays:

- a. A Toolbar for easy navigation across eGLIA
- b. A matrix of appraisal options for the guideline recommendations. Listed vertically on the left are the individual recommendations by a given name. Horizontally displayed are the GLIA dimensions.

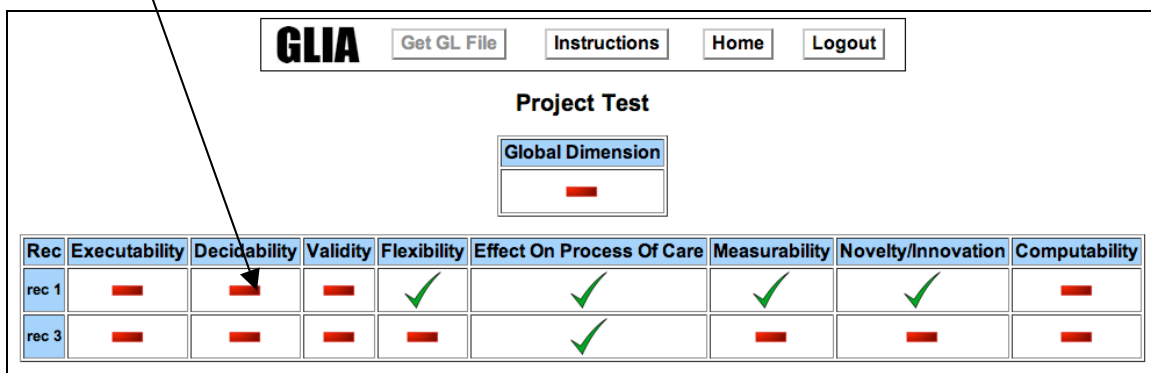
The appraisal matrix displays appraisal progress and allows easy navigation across dimensions and recommendations.

A red bar indicates that all questions in this dimension have not been answered.

A check mark indicates that all questions in this dimension have been answered.

To review responses, click the check mark.

Clicking a red bar opens the dimension for appraisal.



Rec	Executability	Decidability	Validity	Flexibility	Effect On Process Of Care	Measurability	Novelty/Innovation	Computability
rec 1	—	—	—	✓	✓	✓	✓	—
rec 3	—	—	—	—	✓	—	—	—

Figure 6: eGLIA appraisal matrix

4. Appraising a Dimension: At the top of the work area, the text of the recommendation is displayed.

Project: Project Test

**Recommendation rec 3:** With term premature rupture of membranes (PROM), labor may be induced at the time of presentation or patients may be observed for up to 24 to 72 hours for the onset of spontaneous labor.

**Effect On Process Of Care - the degree to which the recommendation impacts upon the usual workflow of a care setting**

Question	Appraisal	Comments
20 Can the recommendation be carried out without substantial disruption in current workflow?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA <input type="radio"/> ? <input type="button" value="Reset"/>	<input type="text" value="This is a comment"/>
21 Can the recommendation be pilot tested without substantial resource commitment? For example, buying and installing expensive equipment to comply with a recommendation is not easily reversible.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA <input type="radio"/> ? <input type="button" value="Reset"/>	<input type="text"/>

Previous Dimension Previous Recommendation Main Menu Next Dimension At last recommendation

**Figure 7: Appraising a Dimension**

Below the text recommendation is the Rating Area which displays the GLIA items for the selected dimension and an Appraisal Panel for each item.

The appraiser selects:

**Yes**, if the recommendation meets this criterion fully.

**No**, if the recommendation does not meet this criterion

**NA**, if the criterion is not applicable to this recommendation

**?**, the rater is unable to address this question because of insufficient knowledge or experience

**Reset**, to remove a rating.

In addition, a text box allows entry of comments. Users should enter the reason why a No or ? appraisal is selected.

Below the rating area is a **navigation panel**. From here, it is possible to:

- Return to the main menu (appraisal matrix) and assure that your ratings are recorded
- Move to the next (or previous) recommendation to assess the same GLIA dimension, or
- Move on to the next (or previous) GLIA dimension for the same recommendation.

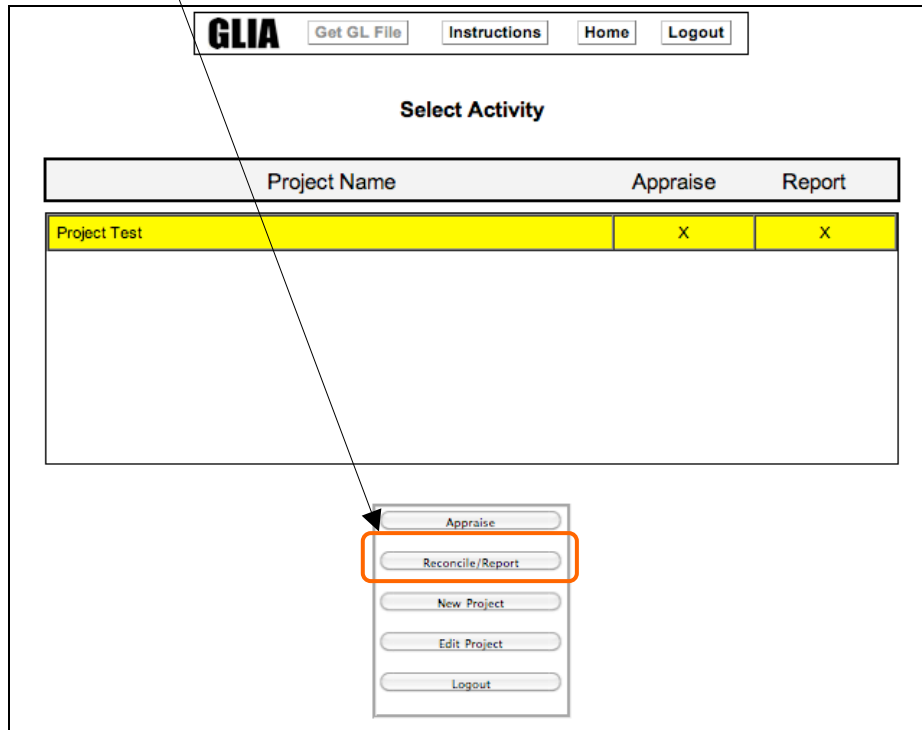
**Note:** Selected scores are only recorded in the database when the user navigates using this navigation panel (i.e., using the browser's Back and Forward arrows does not record the selection.)

Logout when you are done, or click the "Home" button to return to your home page.

## ***Reconcile/Report***

Reconciliation is a critical part of the GLIA process in which variations in appraisals are discussed and resolved. It is intended to be a group activity in which the appraisers participate. Only the Administrator, however, has access to the Reconcile/Report screens.

1. Login to eGLIA (Fig. 4).
2. From the home page, select the guideline project to report and click the Reconcile/Report activity button.






**Figure 8: Reconcile/Report Activity for Appraisers**

3. Reconcile Matrix: Clicking the Reconcile/Report button opens this Reconcile Matrix. Like the Appraisal Matrix, the individual recommendations are listed vertically on the left. The GLIA dimensions are displayed horizontally.

Rec	Executability	Decidability	Validity	Flexibility	Effect On Process Of Care	Measurability	Novelty/Innovation	Computability
rec 1	✓	—	—	✓	✓	✓	✓	—
rec 3	Y	Y	Y	—	✓	✓	✓	—

**Figure 9: Reconcile Matrix**

-  signify areas requiring discussion because potential barriers may have been identified.
-  indicates that all appraisers agreed that the criterion has been met i.e., answered “Yes” to all items in this dimension.
-  indicates that a final decision has been entered in eGLIA.

4. Clicking on the red bar opens the Reconcile screen.
5. The administrator, who is preparing the report, reviews the Tally of votes and the group makes a final Decision about whether the criterion has been met. Especially in cases where the criterion is failed, the administrator should indicate in the Final Comments box why the criterion was failed. Individual appraisers' comments are visible and can be retained verbatim or edited.

**Reconcile Project Test**

**Recommendation rec 1:** Women with uncomplicated breech at 37 to 40 weeks should be offered external cephalic version (ECV) to increase the likelihood of cephalic presentation and vaginal birth.

**Effect On Process Of Care - the degree to which the recommendation impacts upon the usual workflow of a care setting**

Question	Totals	Decision	Final Comments
<b>20</b> Can the recommendation be carried out without substantial disruption in current workflow?	Yes: 1 No: 1 NA: 0 q: 0	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA <input type="radio"/> Clear	<div style="border: 2px solid orange; padding: 5px; min-height: 40px;">           ashyap(yes)            (no): no </div>
<b>21</b> Can the recommendation be pilot tested without substantial resource commitment? For example, buying and installing expensive equipment to comply with a recommendation is not easily reversible.	Yes: 1 No: 1 NA: 0 q: 0	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> NA <input type="radio"/> Clear	<div style="border: 1px solid black; padding: 5px; min-height: 40px;">           no </div>

At first recommendation

Previous Dimension
Main Menu
Next Dimension

Next Recommendation

**Figure 1010: Reconciling a Dimension**

6. eGLIA reports can be viewed at any time during the reconcile process by clicking the appropriate summary buttons. Reports can be saved or printed.
7. Clicking the “View Summary Report” button opens a new window to display the barriers identified. Items reconciled as “No” are reported as obstacles to implementation.

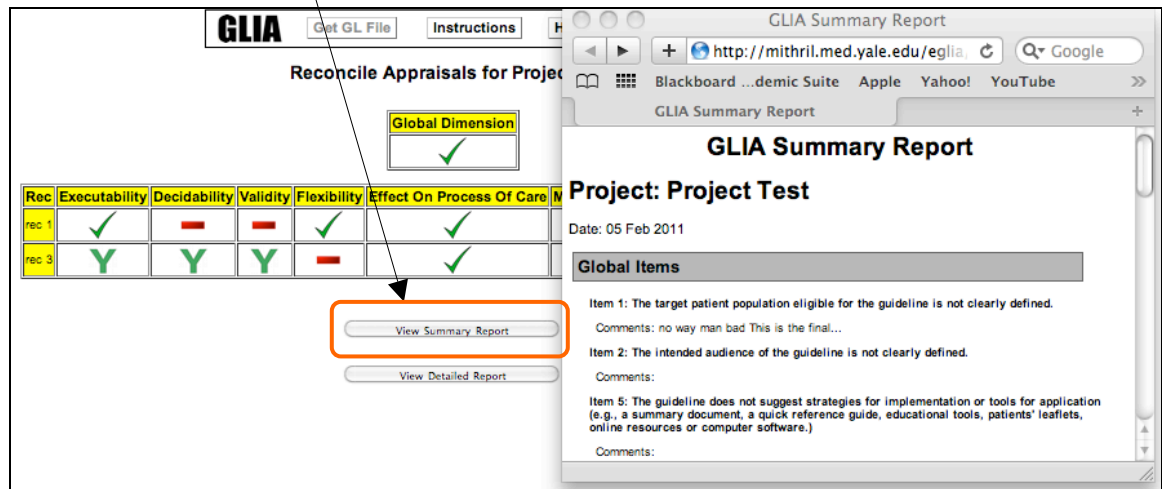


Figure 11: Summary Report in new window can be saved or printed

8. Clicking the “View Detailed report” opens a window to display voting tallies, individual comments, and final comments for all GLIA items.

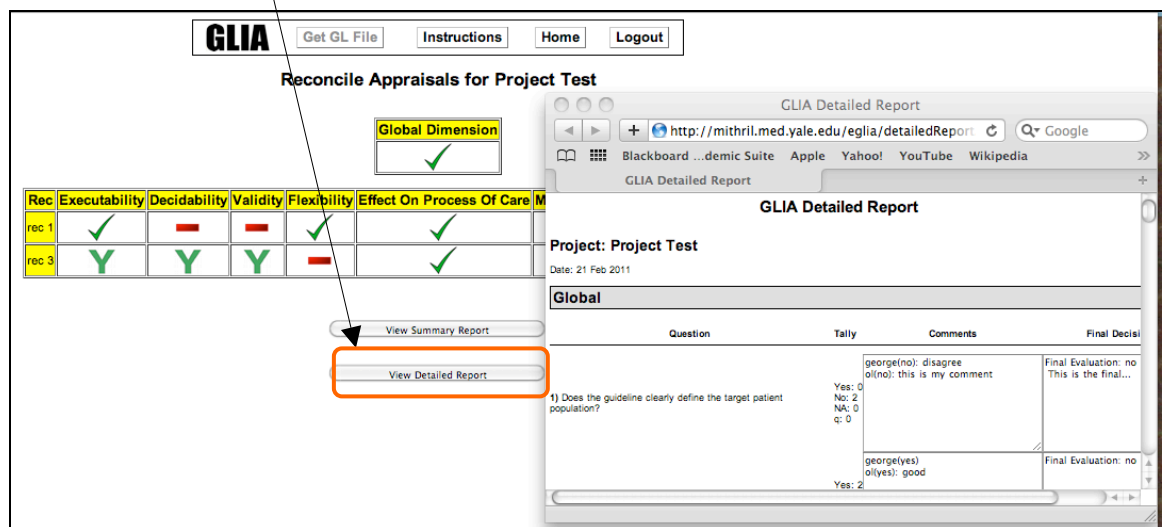


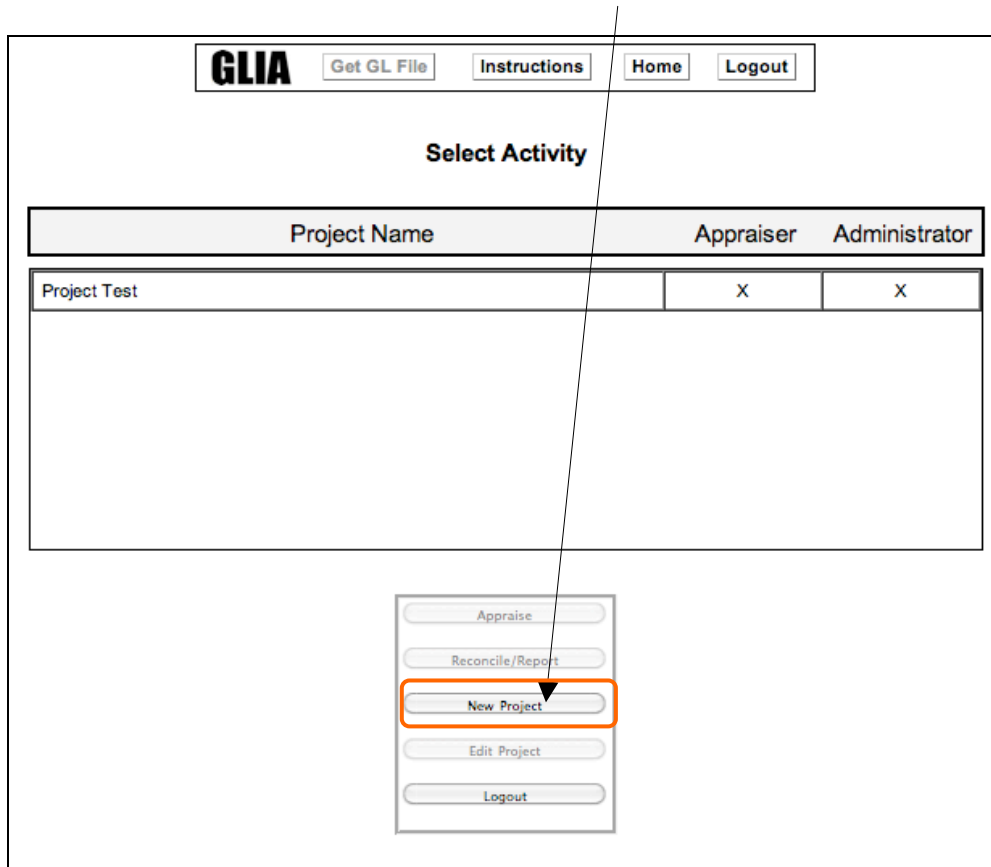
Figure 12: Detailed Report in new window can be saved or printed

## ***New Project***

Before beginning you will need the following information:

- a. The name of the guideline developing organization
- b. An electronic copy of the original guideline.
- c. Email addresses of all the appraisers you wish to invite.

1. Login to eGLIA (Fig. 4).
2. From the home page, click on “New Project” button to start a new project.



**Figure 11: Starting a New Project**

3. On the next screen, follow the directions to name the guideline.  
Click the “info” links for additional information.  
Click the “Submit” button when ready.

The screenshot shows a web form titled "Set up a new guideline project" with a note "(Note: Project Name is a required field)". The form contains the following fields and elements:

- Project Name:** A text input field.
- Developer:** A text input field.
- Guideline File to upload:** A "Choose File" button and the text "no file selected".
- Project Administrator:** A text field containing "Nitu Kashyap".
- Submit:** A button at the bottom right.
- Info:** A small "info" link next to the Developer field.
- Info Modal:** A pop-up window titled "info" with a "Close" button. It contains the text: "Enter the name of the guideline's sponsoring organization".

Arrows from the instructions point to the "Project Name" field, the "info" link, and the "Submit" button.

**Figure 12: New Project Setup, enter guideline information**

4. Name the recommendations and copy and paste the recommendation text.

The screenshot shows a web form titled "Enter the recommendations for New Project". It includes the following elements:

- Instructions:** A box containing three bullet points:
  - Each recommendation must have a name
  - The name can be a title (e.g., Diagnosis), a number, or a number followed by a letter. The name must contain fewer than 30 characters.
  - The recommendation text should be identical to the recommendation in the print guideline and should not include supporting text.
- Rec. Name:** A label above a small text input field.
- Recommendation text:** A label above a large text area.
- Name:** A label to the left of the "Rec. Name" input field.
- Add a recommendation:** A button below the text area.
- Proceed to add appraisers:** A button below the "Add a recommendation" button.

Arrows from the instructions point to the "Rec. Name" input field, the "Recommendation text" area, and the "Add a recommendation" button.

**Figure 13: Enter Recommendations for a new project**

5. To add another recommendation, click the “Add a Recommendation” button. When all the intended recommendations have been entered, click the “Proceed to add Appraisers” button.



6. Enter email addresses of all the appraisers, separated by commas. When you click the “Complete Setup” button, an email will be sent to the appraisers providing a brief explanation about eGlia and instructions for registering.

**Assign appraisers and complete Project Setup**

- Enter the email addresses for your appraisers, separated by commas.
- When you click the 'Complete Setup' button, an email will be sent to the appraisers providing a brief explanation about eGlia and instructions for registering.

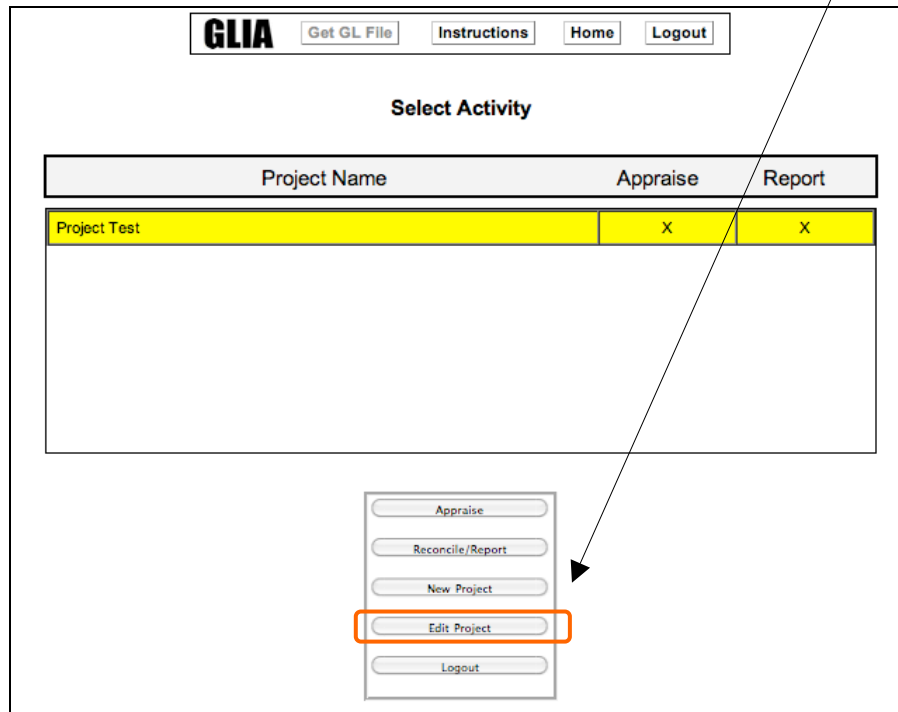
Email addresses  
(separated by commas)

Complete Setup

**Figure 14: Assign appraisers and complete new project setup**

### ***Edit Project (for administrator's only)***

1. Login to eGLIA (Fig. 4).
2. From the home page, select the project you wish to edit and the “Edit project” activity.



**Figure 15: Edit an existing project**

3. An administrator may modify general project information, add or modify recommendations, add or remove appraisers, or change the status of an existing project. Click the desired activity and proceed as below.

GLIA [Get GL File](#) [Instructions](#) [Home](#) [Logout](#)

Edit the recommendations, appraisers, or basic project information. Inactivate or reactivate an existing project.

Project Name	General Information	Recommendations	Appraisers	Project Status
New Project	<a href="#">Edit</a>	<a href="#">Edit</a>	<a href="#">Edit</a>	Active ( <a href="#">Inactivate?</a> )

**Figure 16: Edit general information, recommendations or appraisers**

- a. Edit General Information.

**Edit General Information For:  
New Project**

Project Name:

Existing guideline file for this project: None [info](#)

New file to upload: [Choose File](#) no file selected

[Save](#) [Back](#)

**Figure 17: Edit general information for a project**

- b. Add a Recommendation: Click the edit button under “Recommendations” and proceed to add, or change recommendations (Fig.18). Clicking on “Add a recommendation” button opens a new recommendation box. New recommendations are appended at the end of the current list. Click the “Save” button to save the added recommendation.

**Add or edit recommendations for New Project**

Back Add a Recommendation Save Changes

**Recommendations**

Rec 1 This is the first recommendation Delete

Enter the recommendation name and text in the boxes below and click Save when finished.

Rec. Name Rec 2 This is the second recommendation Save

**Figure 18: Add Recommendation or edit an existing recommendation**

To change an existing recommendation, edit the text of the recommendation and click “Save Changes” button.

- c. Edit appraisers: Add new appraiser(s) by entering their email addresses separated by commas. Revoke access to any appraiser by checking the button next to “Revoke access”. Proceed to save the changes made by clicking “Save”.

**Edit user access to your project**

**Non-Administrators assigned to your project**  
(unregistered)

Appraiser1@mail.com (unregistered) Revoke access

**Add users to your project**

Enter your appraisers' email addresses, separated by commas:

Appraiser2@mail.com

Save Back

**Figure 19: Edit appraiser access or add new appraisers**

- d. Inactivate and Reactivate project: An inactive project cannot be appraised. Reactivating a project makes it available to appraisers again. Click the “Inactivate?” link in Figure 18 and follow the instructions on the next screen.



Figure 20: Inactivate project

From your home screen select an inactive Project to activate and click on “Edit Project” button (Fig. 17). Click on “Activate?” to change the project status to active.

