



ECTU Central Office SOP ECTU_IT_25: Disaster Recovery Test

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Document Revision History		
Version No	Date	Summary of Revisions
1.0	8 th October 2018	Initial creation/New document

1. PURPOSE

This Standard Operating Procedure (SOP) describes the process for testing the University of Edinburgh (UoE) disaster recovery process for bespoke and REDCap databases developed by the Edinburgh Clinical Trials Unit (ECTU).

2. SCOPE

This SOP applies to all University of Edinburgh staff employed within ECTU that develop bespoke or REDCap databases.

3. PROCEDURE

3.1 Preparing for a Disaster Recovery Test

3.1.1 A disaster recovery process test must be performed every 2 years. Reviews must be logged on the Disaster Recovery Test tracker.

3.1.2 The REDCap application is used to test the disaster recovery process.

3.1.3 Contact the IGMM REDCap server contact to agree a testing date. This must also be logged online with UoE Information Services (www.ishelpline.ed.ac.uk/forms/), marking the enquiry for the attention of the IGMM REDCap server contact and clearly indicating the purpose of the enquiry (e.g. REDCap recovery test).

3.1.4 Using REDCap, email all users of the system informing them REDCap will be unavailable due to maintenance from 2pm the day before the test until 2pm on the day of the test. This email must be issued 4 – 6 weeks before the test. A reminder email must be sent 3 days before the test.

3.2 Performing the Disaster Recovery Test

3.2.1 At 2pm the day before the test, the Production database will be taken offline by UoE Information Services (IS). From this point, no further data can be entered on to REDCap and only ECTU administrators can access REDCap.

3.2.2 The Production database must remain offline until the backup database is destroyed due to potential IP conflicts within the recreated database.

3.2.3 A test specific folder must be created in: *ECT Unit/Data Management/Disaster Recovery Test/Completed Tests*. All documentation must be filed in this folder.

3.2.4 The control test data is collected from the offline Production database. The ECTU Disaster Recovery Test template must be used to document the testing process. The following steps must be followed to collect control test data:

- Select three projects for testing.
- Download data dictionaries for the three projects
- Download study data for the three projects
- Download the audit history (logging) for the three projects
- Take a screenshot of the list of Live and Development projects from the REDCap home page and retain a copy.

3.2.5 UoE IS use the overnight backup to create a new instance of REDCap

3.2.6 UoE IS will inform ECTU that the backup is ready. The backup test data must be downloaded, following the steps below:

- Use the same three studies selected for the Production database
- Download data dictionaries for the three projects
- Download the study data for the three projects
- Download the audit history (logging) for the three projects
- Take a screenshot of the list of Live and Development projects from the REDCap home page and retain a copy

3.2.7 Contact the IGMM REDCap server contact to request they destroy the backup server and bring the Production server back online.

3.2.8 Using REDCap, email all users informing them that REDCap is now available for use.

3.3 Assessing the Test Outcome

3.3.1 Compare the three sets of downloaded files using a file comparison function. Record the results on the ECTU Disaster Recovery Test template.

3.3.2 Visually compare the screenshots of projects from the Production and backup servers. Record the results on the ECTU Disaster Recovery Test template.

3.4 Successful Test Outcome

3.4.1 If all files match and the screenshots both show the same studies, number of participants, and number of fields, the recovery test is considered a success.

3.4.2 Contact the IGMM REDCap server contact to inform them the test was successful and the next test will be scheduled in two years.

3.4.3 Delete all data files and audit trails and record the date deleted in the REDCap Disaster Recovery Test template. Retain screenshots and data dictionaries in the electronic test specific folder.

3.5 Unsuccessful Test Outcome

3.5.1 If all files do not match and/or the screenshots do not show the same studies, number of participants, and/or number of fields, the recovery test is considered unsuccessful. Record this on the REDCap Disaster Recovery Test template.

3.5.2 Using the same data files and overnight copy, perform a second attempt at assessing the test outcome.

3.5.3 If the test is now successful, record the outcome on the REDCap Disaster Recovery Test template and follow the steps for a successful test outcome

3.5.4 If the test is unsuccessful, contact the IGMM REDCap server contact and inform them an investigation must be carried out to determine the reason for the failed test.

3.5.5 Retain all documentation, including all data files and audit trails, until the fault has been rectified. When the fault has been rectified, delete all retained data files and audit trails and record the date deleted in the REDCap Disaster Recovery Test template.

3.5.6 Once UoE IS have rectified the fault, perform a new disaster recovery test following the steps described in this SOP.



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4. RELEVANT DOCUMENTS AND REFERENCES

ECTU Disaster Recovery Test Template (on shared drive)

ECT Unit/Data Management/Disaster Recovery Test/Templates/Current

Disaster Recovery Test Tracker (on shared drive)

ECT Unit/Data Management/Disaster Recovery Test/Test Date Tracker