SOP number	**53.005**	Version	**8.0**
Title	**Audit of Research Studies and Systems Supporting Research**		

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SOP category	
Staff category	

Staff Category	**R**	**A**	**C**	**I**
R&I Quality Assurance Manager		X		
Senior Quality Co-Ordinator	X			
Glasgow CRF QA Lead	X			
Beatson CRF QA Lead	X			
QA Officer	X			
Bio-Repository Audit Staff	X			
Safehaven Audit Staff	X			
Senior R&I Managers			X	
Research Governance Manager			X	

1. Scope

This procedure applies to all of Research and Innovation and the teams within.

2. Purpose

The purpose of this SOP is to describe the methods of conducting ICH GCP, compliance and System audits of research systems and processes within NHS Greater Glasgow & Clyde (NHSGGC). This involves NHSGGC Sponsored, Co-Sponsored, Commercial or Hosted Studies of all types including Clinical Trials of an Investigational Medicinal Product (CTIMPs) and Clinical Trials of an Investigation Medical Device (CIMD).

A clinical trial is defined as research that comes under The Medicines for Human Use (Clinical Trials) Regulations 2004 (as amended). A research study is defined as research that does not come under The Medicines for Human Use (Clinical Trials) Regulations 2004 (as amended) and follows the Research Governance Framework for Health and Community Care (Scotland), 2001 as amended. A research project defines any type of research.

This also includes the NHS Governance oversight of audits for Systems and Processes of teams within the Research and Innovation Department (the Glasgow Clinical Research Facility (GCRF), Systems team (R&I), Research Pharmacy, the Bio-repository, Safehaven), and any other departments involved in research activity such as the Beatson West of Scotland Cancer Unit and NHS laboratories handling Category 2 and 3 samples as required. Audits conducted by these groups will follow their own audit process and may be subject to audit by R&I in areas relevant to sponsored trials.

The audit process outlined in this SOP is applicable to all planned or for cause audits conducted by trained R&I staff.

3. Procedures

3.1. Audit Definition

It is important for a correct understanding of what constitutes an audit and what does not. An audit is an independent review of systems, tools, practices, procedures, activities or data for the purpose of assuring both compliance to agreed standards, efficiency and fitness of current practices. For an audit to be independent, it must be undertaken by an individual not directly associated in performing the subject under audit to avoid conflicts of interest or bias.

An audit is an assessment of the subject at the point of time of the audit and will most often be of a sample of available information/data instead of 100% coverage. To this end, an audit is similar to monitoring as it can only cover information available at the time and does not guarantee activities going forward in the way continual Quality Control (QC) checks can. Audit differs from Monitoring in that Monitoring is scheduled to occur at multiple points within the timeline of a trial, however an Audit is usually only scheduled for a single point in time as required. In some instances a series of audits may be required to take place during different points within a trial lifecycle.

Similar to Monitoring, following an audit, findings may be raised but will not be the responsibility of the Auditor to address, the Auditor will maintain oversight of the findings throughout as discussed later in this SOP. In the event a finding is raised based on a sample of available information, those assigned to address the finding may be asked to complete QC checks of a larger, or even 100% selection of data to correct the identified issues.

3.1.1. Types of Audit

There are two main audit types that can be conducted as part of the audit schedule, Compliance and System Audits.

Compliances Audits have the intended output of determining compliance to internal processes and SOPs, i.e. are the required stages of the SOP being followed.

System Audits can encompass the same activity as compliance audits in that compliance to SOPs is considered but also asks the higher level question on the fitness of the SOPs themselves for the intended purpose and compliance to regulations. This level of audit is more in depth and requires an additional level of training and expertise from the Auditor.

Running through all audit types is the consideration of ICH GCP, both compliance and System audits can look at the requirements of ICH GCP and the ability of activities and SOPs to meet these requirements.

It is important to note that QC checks are not considered audit activity as this is the responsibility of those performing the activities related to trials. An audit may review and confirm QC activity but cannot be considered as QC.

3.1.2. Auditor

The Auditor or Auditors are the individuals tasked with the action to carry out the assigned audit, depending on the nature of the audit they may have a varying amount of experience and may be required to invoke the assistance of suitably experienced individuals. Those individuals asked to assist may not necessarily be Auditors and must not be directly involved in the area under review in order to ensure impartiality.

3.1.3. Auditee

An Auditee is an individual involved with the activity or process under review as part of the audit. They may be the individual directly completing the activity or those responsible for the process area or line manager of those completing for example. During an audit there can be multiple individuals selected as Auditees and they will be the recipient of any completed audit reports. It is important to insure an appropriate level of representation is made when selecting the Auditees.

3.2. Audit Planning

An Audit plan will be developed by the Quality Assurance Manager for R&I on an annual basis in line with the financial year of April to March, using Form 53.005A, this will list the planned audit activities for the upcoming year. The plan will be updated to reflect changes as a result of For Cause Audits or the impact of other unplanned activity, e.g. MHRA Inspection, Pandemic, etc. This plan will be developed by the Quality Assurance Manager, reviewed and approved by the Governance Manager and R&I Director.

Other departments within R&I with responsibility for the preparing their own audit plan will follow the principles of this SOP but will have their own specific SOP for conducting Audits within their area, for example GCRF, Bio-Repository, Safe Haven and BCRF. These plans will be presented at the GHSP RAG for overview and collective agreement.

The R&I Audit Plan will be developed using a number of methodologies, a list of key audit activities which will be conducted on an ongoing basis will be a standard presence on audit plans. This will include the following:

Key R&I SOPs
R&I Systems R&I management & Sponsor (SREDA, Q-Pulse, EDGE, etc.)
Non-Compliance Register
Protocols
Delegation Logs
GMO and FIH Studies
Non-CTIMP Studies
Protocol Modifications
Risk Assessments

Stakeholders from across all departments within R&I will be asked to provide their input on any areas of concern or that have previously caused issues, this will be added to the pool of potential audits and considered for the final plan. A review of previous non-compliances and risk registers will be carried out to identify potential areas for audit. This will enable a risk based approach to be used when developing the final plan. Each audit topic will be considered for its potential impact, scope of affected areas, likelihood and feasibility to audit prior to the formation of the overall plan being created.

This plan must be produced and approved for the month of April for the upcoming year.
When a plan has been produced and confirmed, all areas who will come under audit will be contacted to give advanced notice that the audit has been scheduled and confirm their availability. In preparation of the plan, the topics will have been discussed with the relevant stakeholders to get agreement on their inclusion ahead of forming the final plan.

3.2.1. For Cause Audits

A For Cause audit is one which is called for as a result of a sequence of events or specific feedback from Senior Managers or external stakeholders.

A degree of flexibility must be planned in to the audit schedule to allow for the commitment of resource to address these audits.

Normal rules must be followed in terms of communication with Auditees, conducting the audit and recording details. However, in the circumstance that an audit has been specifically requested by Senior Management they must be kept informed of the development of the audit activity and any relevant or substantial findings as well as any agreed reporting mechanisms, such as to GHSP RAG and the Board Clinical Governance Committee.

3.2.2. Recording Plan in Q-Pulse

When the R&I Audit plan has been completed and confirmed, a signed record will be uploaded to Q-Pulse. The contents of the document will then be entered in to Q-Pulse within the Audit module to create an audit record for each planned audit. This will contain the scheduled dates of the audit, Auditor and Auditees, scope items to come under review and a short description of the plan and intent of the audit. This record will later be utilised by the audit team during the audit to record the activity they undertake and produce any non-compliances as required.

All audit activity conducted with R&I must be recorded in Q-Pulse. The departments within R&I may also utilise Q-Pulse to record audits or make use of alternative systems such as EDGE.

3.2.3. Activities to Be Audited

The audit activity within R&I can cover a number of different areas, trials will frequently be audited and they fall in to a number of different categories as detailed in the table below:

<table>
<tr><td rowspan="3">Sponsored</td><td>CTIMP</td><td></td><td rowspan="6">GMO</td><td rowspan="6">Phase 1</td></tr>
<tr><td rowspan="2">Non-CTIMP</td><td>High Risk</td></tr>
<tr><td>Low Risk</td></tr>
<tr><td rowspan="3">Hosted</td><td>CTIMP</td><td></td></tr>
<tr><td rowspan="2">Non-CTIMP</td><td>High Risk</td></tr>
<tr><td>Low Risk</td></tr>
</table>

As R&I is made up of a number of different teams covering a wide range of activities, all systems and practices within R&I can be subject to an audit. As some of these areas are in relation to specialist activities, a Subject Matter Expert (SME) from the relevant area may be asked to assist with the audit activity.

3.2.4. Audit Scopes

All Audit records within Q-Pulse will contain a number of scope items to identify areas under review as part of the audit, this can be used to identify audit topics such as trials, sites, regulations (ICH GCP, ISO etc), SOPs etc.

3.3. Conducting the Audit

3.3.1. Opening Meeting

Prior communication should already have been made with the Auditees before completion of the audit plan, however, in advance of the audit the Lead Auditor (this is the Auditor identified to lead on the individual audit) will communicate with those involved to discuss the specifics of the audit. This will allow for the Auditees to be made aware of the requirements of the audit and highlight or discuss any potential issues in advance.

It is good practice, where possible, to have a discussion with those to be involved in the audit either in person, by phone or Teams etc. to set the expectation of what is to come. This is a good opportunity to explain the process to Auditees and clear up any questions which may be raised.

3.3.2. Audits on Location

When conducting an audit on Location the Auditor will confirm that the required resources are available, this may include, but not be limited to:

- An appropriate working environment (secure area, desk, chair etc.)
- Appropriate means to contact team members of area under audit
- All required records, documentation and evidence
- Appropriate access to required systems

With all appropriate resources in place the audit may then be carried out, this may be completed independently by the Auditor by reviewing the available documentation and records or also through questioning carried out with the Auditees.

3.3.3. Remote Assessments

In the event it is not possible to conduct an audit in person a remote audit may be carried out, this involves sending out the appropriate list of questions from the Q-Pulse Question Bank and instructions on how to complete and when a return is expected by. When the completed list has been received back from the Auditee it will be reviewed by the assigned Auditor to identify any issues or to seek further clarification through contact with the Auditee. In the event a finding is identified, this will be communicated with the Auditee and raised for action.

As part of the assurance of remotely reviewed activities, a random selection of previously remotely audited activities will be selected for on-site audit in a future audit plan. This is to ensure correctness and completeness of reviews.

When using the available Q-Pulse question bank, this is intended as a starting point and is within the remit of the Auditor to adapt the questions as deemed necessary. If the completion of the set list of questions is paired with a remote conversation between the Auditee and Auditor and an additional line of questioning presents itself due to responses, the Auditor may add the details of this new line of questioning and relevant response to the final audit report.

3.3.4. Approved Auditors

Only those who have been approved to undertake an audit will be authorised to fill the role of Lead Auditor. As a standard, an Auditor must undertake 3 successful supervised audits before progressing to the oversight stage with a further 3 successful audits at this stage before progressing to unsupervised. These numbers are a guidance and may be increased or decreased depending on circumstances, for instance, if an Auditor has transferable skills then this timescale may be compressed. Alternatively if the Auditor would prefer additional support it may be extended. The level of training required is associated with the type of audit activity, simple QC check type audits can be performed by any member of staff and directed by a member of the QA team. For more in depth audits of Systems, Processes and Regulations evidence of previous audit experience will be required.

3.3.5. Information Access

In order to effectively carry out audit activity, Auditors will require access to certain sources of information. This may be on a temporary or permanent basis depending on the nature of the information and where it is stored. As audits may require extensive review of information it is not always practical to request documents on a case by case basis as this can be an evolving picture. Access to information must be agreed in advance by the Auditors, in the event it is not possible to gain access to the required information in a timely manner this may impact on the completion of an audit and may result in the audit being closed with a major finding of no access to information

3.3.6. Audit Findings

An audit finding is the identification of an event or activities which have taken place or have the possibility to take place during the review of information during the audit. There is naturally a scale of severity over which these findings may range, Minor, Major or Critical which will be further defined below. An auditor may also have cause to raise an Observation or a Recommendation as part of the audit activity, these are not considered findings and do not need to be acted upon. Major and Critical findings will overlap with Category 3 and 4 Escalated findings respectively that will need to be escalated according to SOP 51.008 as detailed in section 3.5.1.

Minor

A Minor finding is one in which a deviation has taken place or has the potential to take place but there is no evidence of an impact to the trial or the patient.
i.e. A finding which is not deemed to be either Major or Critical.

Major

A Major finding is a non-critical finding where evidence exists that a significant and unjustified departure from applicable legislative requirements has occurred that may not have developed into a critical issue, but may have the potential to do so unless addressed, and/or where evidence exists that a number of departures from applicable legislative requirements and/or established GCP guidelines have occurred within a single area of responsibility, indicating a systematic quality assurance failure.

Critical

Where evidence exists that significant and unjustified departure(s) from applicable legislative requirements has occurred with evidence that:

- the rights, safety or well-being of trial subjects either has been or has significant potential to be jeopardised, and/or
- the clinical trial data are unreliable and/or
- there are a number of Major non-compliances across areas of responsibility, indicating a systematic quality assurance failure, and/or
- Where inappropriate, insufficient or untimely corrective action has taken place regarding previously reported Major non-compliances.

Summary Table	
Finding Type	Definition
Minor	Deviation identified, no meaningful impact to trial or patient
Major	Deviation identified, impact to trial or patient
Critical	Deviation identified, serious impact to trial or patient

Observations

An Observation can be utilised by the auditor to point out something identified during the audit, by definition this is not a finding and as such does not need to be addressed. This however is a useful way for an Auditor to feedback on possible areas of improvement and remove any future issues.

Recommendations

As with Observations, this is not a finding. This is a way of an Auditor making a suggestion on things which can be implemented to improve an activity. As the Auditor is to remain neutral in the activity it can only be put forward as a suggestion and can be either accepted or rejected by the Auditee.

For Major and Critical findings a Root Cause Analysis is required, for Minor findings this is not essential but may prove useful in determining the appropriate course of action to be taken.
All 3 levels of Findings will have to address:

- Containment of the issue – immediate action to fix the issue
- Corrective action – what changes must take place to stop a recurrence of the identified issue
- Preventive Action – What changes must take place to stop a wider occurrence of a similar issue in other trials/processes.

3.3.6.1. Incidental Findings

As part of an audit there will be an original scope of review which will have been discussed with the Auditees at the opening meeting. As audits can evolve based on the information reviewed it is not always possible to fully identify all areas that will be reviewed in advance. On some occasions a finding may be identified which is incidental to the main area of audit, i.e. with the work from a different team or as part of a different process. This will be addressed in the close out meeting and should be expanded to include anyone which may be impacted with an explanation as to why they were not involved in opening meeting, i.e. area of finding not covered in original scope. In this instance a finding must still be raised, a deviation cannot be ignored because it was not within the original scope but similarly the Auditor must make all efforts to stay within the confines of the scope and not look beyond this unless required.

3.3.6.2. Subsequent Findings

The situation may arise in which during the course of investigating and correcting a finding from an audit, further findings are uncovered. Although these findings have been identified following the audit activity they may still be treated as a finding by the Auditor. In this instance, sufficient details will be gathered and agreed in order to raise the new finding and set appropriate timescales. This finding will then be managed alongside all others until completion.

3.4. Completing Audit

When the review of documents, systems, and interviews for the audit have been completed, a close out discussion must take place between the Auditor(s) and Auditee(s). This is an opportunity to discuss what has been reviewed during the audit and to clarify any potential findings, it is possible that the discovery of an audit finding will be as the result of a misunderstanding or incomplete information. By having this discussion with the Auditee(s) the audit team may be able to remove the misunderstanding as an audit finding before raising it. This discussion should not be solely focused on the non-compliances identified, this should be a holistic summary of all that was reviewed, making the effort to identify the positive aspects that have been identified and areas of compliance.

When this discussion has been completed and agreement reached between the Auditor(s) and Auditee(s), the Lead Auditor will then complete a formal Audit Report by updating the Q-Pulse record for the audit. The summary of the audit will contain 5 key areas (as appropriate):

1. A statement of Auditor(s) involved, date and location of audit as well as audit topic.
2. A summary of what was audited, what was reviewed and how this was achieved.
3. A summary of any findings, discussing how they were identified and if required why it is a finding.
4. A discussion of positive activities identified, any areas of Good Practice.
5. Any suggested issues or improvements to be added or considered to be added to procedures.

Any additional detail which has been generated as a result of the audit may also be attached to the audit record as a document. This may take the form of a list of questions and answers, reviewed documents or review of data etc.

Any identified findings from the audit must also be raised in Q-Pulse and given appropriate timescales and assigned ownership, following all of these actions being completed, a final audit report will be generated and issued to the Auditee(s) within 10 working days of the audit being completed. This E-Mail will be attached to the audit record as evidence. The audit report will be sent to the auditee(s) to summarise the final outcome showing the list of required actions. The audit report will be given to the Auditees as they will be the owners of this report and any associated activity which must be carried out to correct any potential findings.

3.5. Managing Findings

When a finding has been raised as a result of an audit, a CAPA record will be created in Q-Pulse which will have an identified owner and a target date for completion. Each will be managed to completion and will be reported on a weekly basis to the Audit team. This will allow the associated Auditor to manage these actions to completion and chase as required. The timeline of each action will be decided during the closing meeting of the audit between the Auditor and the Auditee, this is to account for the varying nature of the work involved for the variety of findings which can be raised. The timelines for the findings will then be recorded in Q-Pulse and managed, if an extension to the timeline is required then this will be discussed and agreed with the Auditor.

In the event of findings not being completed within the required timelines, an escalation process will be followed as detailed below:

Period	Escalated to
1 month overdue	QA Manager
3 months overdue	RGM
6 months overdue	Director

The Auditor will maintain oversight of the actions as those assigned with the actions must report back to the Auditor in line with the agreed timescales. The responses will vary dependent on the severity of the finding and the work involved to correct.

3.5.1. Escalating Findings

In the event a finding is raised which is classified as Category 3 or Category 4, (See Appendix 1), this finding will be forwarded to the Non-Compliance process (SOP 51.008). The classification of the category of a finding will be recorded in the finding record raised in the CAPA module of Q-Pulse. This record will be forwarded to the appropriate contact as detailed in SOP 51.008. Generally, a Category 3 or 4 will overlap with a Critical Finding and will not require to be addressed as part of the audit, they can simply be raised and then closed as the Escalated Finding will manage this going forward.

3.6. Closing the Audit

When all findings associated to an audit record have been closed it is then possible to close the Audit record. This is the responsibility of the Lead Auditor and will be monitored as part of the weekly reports produced. Following the close out of all findings and the audit record, a final audit report will be sent to the Auditee(s) showing that all actions have been completed.

3.7. Managing Audits

All Audits will be managed within R&I through the use of standard reports generated on a weekly basis. This will produce a report for the individual Auditors as well as a summary report for management. A report will be sent to the individual Lead Auditor associated to the audit record and escalated in accordance to the same timescales as findings detailed in 3.5.

3.8. Audits by Other R&I Teams

The Quality Assurance Manager must maintain oversight of the audit plans for other NHS Departments (GCRF, Bio-Repository, Safehaven etc.) to ensure that the plan for Research and Innovation has a sufficient level of coverage and does not result in unnecessary duplication. The annual audit plans will be presented at the appropriate GHSP RAG meeting where they can be reviewed, discussed and agreed.

3.9. Audits by External Contractor

NHS Research Governance or R&I Senior Managers may contract with an external organisation to carry out specific audits. The aim and scope of the audit will be defined for the external Auditor but the Auditor will follow their own audit processes. The details of this audit will be recorded within Q-Pulse and findings managed appropriately.

4. Referenced documents

- Form 53.005A – Audit Plan
- The Medicines for Human Use (Clinical Trials) Regulations 2004, as amended (S.I. 2004/1031)
- The Medicines for Human Use (Clinical Trials) Amendment Regulations 2006, as amended (S.I. 2006/1928)
- Research Governance Framework for Health and Community Care (Scotland), 2001 as amended.
- SOP 51.008 - Handling non-compliance with Good Clinical Practice (GCP) and/or the trial protocol in clinical research sponsored, co-sponsored or hosted by NHS Greater Glasgow and Clyde

5. Related documents

- UK policy framework for health and social care research 2017, as amended

6. Document history

Version	Date	Description	Retrospective Implementation
1.0	11/09/2008	Approval of Version 1 (never formally released to staff)	No
2.0	12/07/2010	Release of Version 2	No
3.0	23/03/2012	Release of Version 3.0. Complete re-write to incorporate new legislation. New template v1.3.	No
4.0	19/01/2015	Release of Version 4.0. Clarification and update of processes.	No
5.0	15/07/2016	Renumbered SOP	No
6.0	18/11/2021	Amend GB RAG to GHSP RAG; minor process amendments	No
7.0	18/02/2022	Substantial updates to document, inclusion of Q-Pulse.	No
8.0	22/12/2025	Update to document, clarification and removal of forms.	No

Appendix 1 – Categorisation of Findings

Category 1	Issues of Non-Compliance of an administrative or technical nature are detected that do not compromise patient safety and/or the integrity of the data.
Category 2	Issues are detected that could affect the conduct of the study but do not constitute a potential serious breach of GCP or the protocol. Category 2 may include issues that have a minor impact. It is important to record Category 2 issues as a reasonable volume of the same issue can lead to a Category 3 issue.
Category 3	Issues are detected that may have an impact on patient safety and/or integrity of the data. This may include potential serious breaches of GCP and/or the trial protocol.
Category 4	Issues are detected that have a significant/critical and/or immediate impact on patient safety and/or integrity of the data. This may include life threatening patient safety issues and potential serious breaches of GCP and/or the trial protocol.