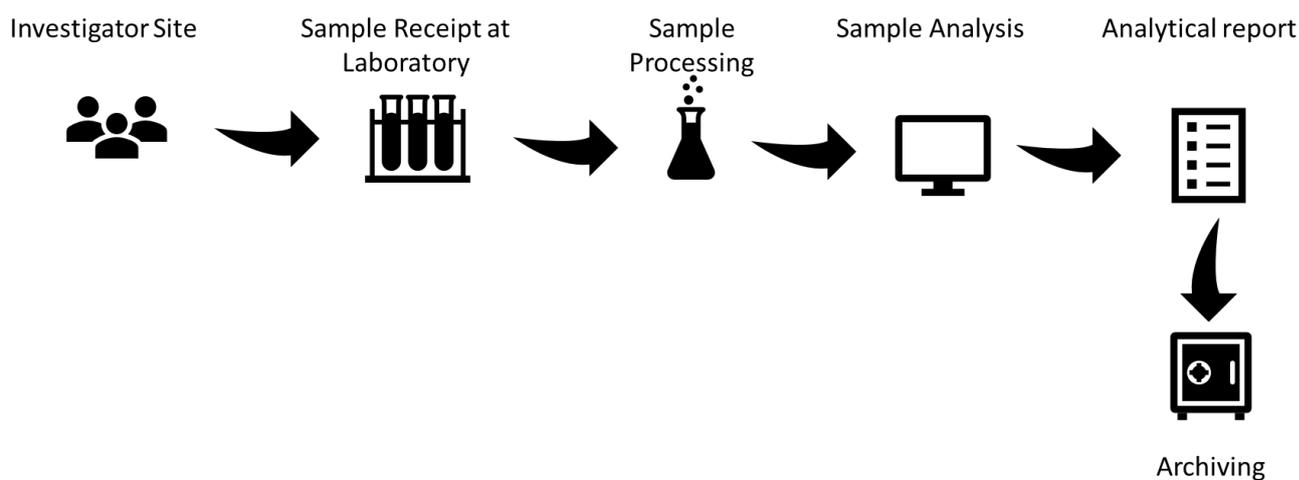


## Vendor Selection of Laboratory Case Study

### Background

The Quality Assurance (QA) Group of VinKass Pharma performed a vendor selection audit of NoProblemo Labs on 17 April 2017 to assess the suitability to perform the bioanalysis of PK samples for two clinical trials sponsored by VinKass Pharma.

The laboratory conducts LC/MS analysis of plasma samples:



The laboratory receives plasma samples from investigator sites. Stores and processes samples ready for analysis. It then analyses samples to obtain the concentration of the study drugs in individual plasma samples. These drug concentrations are then reported back to the sponsor.

Sample tracking is via a series of log books which are updated each time a sample is removed from a freezer and returned.

Temperature monitoring of freezers and laboratory space is via a central temperature monitoring system which has an alarm function if a temperature excursion occurs.

Drug concentration data is calculated within the analytical instrument which is then transferred to another department to add to final reports.

The laboratory has an independent Quality Assurance function.

All data and supporting records are archived at an off-site facility.

This is the first time NoProblemo Labs have conducted clinical trial analysis.

## Vendor Audit Summary

**Date of Audit:** 17 April 2017

**Audit Team:** G Lee  
A Lifeson

**Purpose of Audit:** Vendor Approval to Perform Laboratory Analysis of Clinical Trial Samples

**Audit Scope:** Title 21 – Part 58 Good Laboratory Practice for Non-Clinical Laboratory Studies.

### **The Audit:**

Risk assessment identified that ensuring the correct samples were analysed was critical, therefore the audit focused on:

1. Sample receipt procedures
2. Sample handling/storage
3. Sample Processing

The Quality Management System was assessed to ensure that:

1. Adequate SOPs were in place to control sample handling, equipment maintenance, training and results reporting
2. There was a suitable SOP management system
3. Staff were adequately trained in the SOPs

The Laboratory facility was toured to assess:

1. That it was of suitable design and quality
2. Equipment was adequately maintained

The systems for reporting of results were reviewed (as there was no data available to review)

1. Transfer of data from database to report
2. Report release requirements

### **Audit Findings:**

There were no major or critical issues identified. It was recommended to repeat the audit in 3 years.

### Discussion

Has the audit adequately assessed key areas of the laboratory?

Please discuss any issues or aspects of the laboratory operation that may have been missed



Medicines & Healthcare products  
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# Vendor Selection Case Study

Steve Vinter and Sean Kassim



# Considering Quality Vendors

## Sponsors/Applicants

- Critical decisions
- Clear expectations
  - Detail any applicable regulations
  - Define acceptable standards of work
- Common sense
  - Evaluate if they can do what they say they can
- Look at quality of Quality Assurance Units
  - Don't need the extreme technical expertise of the vendor



# Sample Analysis Vendors\* (I)

Organization

Contracts and Agreements

Trial Conduct

Sample labelling, Receipt, Storage, and Chain of Custody

\*See Reflection paper for laboratories that perform the analysis or evaluation of clinical trial samples: EMA/INS/GCP/532137/2010

[http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Regulatory\\_and\\_procedural\\_guideline/2012/05/WC500127124.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Regulatory_and_procedural_guideline/2012/05/WC500127124.pdf)



# Sample Analysis Vendors (II)

Method Validation

Repeat Analysis

Data Recording

Reporting

Facilities

Equipment Maintenance

Computerized Systems



# Sample Analysis Vendors (III)

QA Process

Quality Control

SOPs and Other Policies

Blinding and Unblinding

Retention of Data

Preparation and Distribution of Clinical Kits

**Focus on getting quality work from your vendor – not just satisfying the regulations**



# Question Review

Has the audit adequately assessed key areas of the laboratory?

Please discuss any issues or aspects of the laboratory operation that may have been missed

What can we do about the data?

What changes could be made to vendor selection and future audits?



# Vendor Selection Case Study

1. LCMS Software add-in for data processing had not been validated

CAPA in place to validate upgrade

2. Electronic source data was held on local PCs and not archived (these instruments held all the relevant source and metadata to re-construct the study conduct – e.g. instrument method, sample/run sequences and chromatograms).

CAPA confirmed data on instruments was complete and backed-up. New process put in place to archive data electronically

3. The temperature monitoring system had not been validated

CAPA in place to validate system and review historic data – issue only impacted freezers.



# Vendor Selection Case Study

4. There were no SOPs or processes in place to manage user access and privileges for the analytical equipment. All users had administrator access rights to the equipment for both studies

**CAPA in place to put suitable controls in place**

5. Study number one analysis was conducted with the audit trail switched off. There should have been 36 analytical runs, but 40 runs were prepared and loaded on the instrument but only 36 runs results recorded (deleted?)

**CAPA in place to ensure audit trails activated**

6. The instrument used for study number two had its integration audit trail deactivated at the time of inspection. However, the audit trail was switched on for the operation of the instrument during analysis

**CAPA in place to ensure audit trails activated**



# Data Dilemma

## Study Number Two:

- Instrument audit trail switched on – can see all activities regarding operation
- Integration audit trail not switched on and not validated
- **Possible Remediation of Data Once:**
  - ✓ **Quantification add-in upgrade validated**
  - ✓ **Data is reprocessed (integrated) in validated software**

## Study Number One:

- Instrument audit trail switched off – deleted files?
- Integration audit trail not switched on and not validated
- **Data Not Acceptable?:**
  - Cannot reconstruct the conduct of the analysis**
  - No stability data or samples available to repeat analysis**



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## Vendor Selection of Laboratory Case Study

### Update

Sample analysis has been completed at NoProblemo Labs, the data has been finalised and reported to the sponsor.



A regulator announces that plan to inspect NoProblemo Labs and will review the conduct of the two studies from VinKass.



### Summary of Inspection Findings

The inspection raised a number of significant findings across the two studies, some of which questioned the reliability of the study data:

1. LCMS Software add-in 'Dat2Results' for data processing had not been validated
2. Electronic source data was held on local PCs and not archived (these instruments held all the relevant source and metadata to re-construct the study conduct – e.g. instrument method, sample/run sequences and chromatograms).
3. The temperature monitoring system had not been validated
4. There were no SOPs or processes in place to manage user access and privileges for the analytical equipment. All users had administrator access rights (via a single account) to the equipment for both studies.
5. **Study Number One** analysis was conducted with all audit trails disabled. There should have been 36 analytical runs, but 40 runs were prepared (identified via laboratory preparation records) and loaded on the instrument but only 36 runs results recorded (deleted?)
6. The instrument used for **Study Number Two** had its integration audit trail deactivated at the time of inspection. However, the audit trail was switched on for the operation of the instrument during analysis.

## Discussion

What can we do about the data?

What changes could be made to vendor selection and future audits?