Introduction to E-environment/ Data Integrity workshop

Cecilia Arfvidsson, on behalf of the EBF

EBF Open Symposium

Hotel NH Collection Barcelona, 21-23 November 2018

EBF Data Integrity Workshop Outline

- Introduction to the workshop (5 min)

  Cecilia Arfvidsson on behalf of the EBF

- MHRA intro to data integrity guidelines and recent findings (20 min)

  Andrew Gray & Jason Wakelin-Smith, MHRA

- EBF core members' inspection feedback (15 min)

  Stuart McDougall (Arcinova) & Mark Lewis (GSK)

- Round table discussion (20 min)

  Focused on the themes - data control and audit trails

- Panel discussion (30 min)

  In the panel: Andrew Gray (MHRA), Jason Wakelin-Smith (MHRA), Stuart McDougall (Arcinova), David van Bedaf (Jansen)

MHRA GXP Data Integrity Guidance and Definitions – March 2018

- The way regulatory data is generated is continuously evolving;
  - New supporting technologies – electronic data capture, automation of systems and use of remote technologies
  - Increased complexity of supply chains and ways of working

- The purpose of the regulatory requirements remains the same;
  - Confidence in the quality and the integrity of the data
  - Being able to reconstruct activities

EBF Data Integrity Workshop Focus

The following two themes will be discussed:

- Data control
  - How can we transfer data and ensure no modifications and/or deletions occur in the process?
  - What documentation can we store with our study file to ensure that data integrity is maintained at each data transfer step?
- Audit trail
  - How are audit trails used to ensure modifications and/or deletions of data are identified and captured in line with data integrity expectations?
    - Why do we review the audit trail, what are the risks that we would like to mitigate?
    - How do we document the outcome of the review?
    - Is the audit trail review procedure incl in SOP?

EBF E-Environment team

- Magnus Knutsson
- Stuart McDougall
- Mark Lewis
- David van Bedaf
- Natalie Mokrzycki
- Mira Doig
- Susanne Globig
- Marco Michi
- Cecilia Arfvidsson

EBF workshop
the e-environment

Case studies by industry

Case 1

MHRA inspection

During an inspection in April 2018, MHRA were made aware that organisation were working to meet requirements of the MHRA Data Integrity Guidance.

Summary of Major finding:

Data Integrity deficiencies identified with lab analyser, LIMS system and mass spec software.

Deficiencies included:

- Lack of access control
- No independent system admin
- Text files not being protected from modification
- Ineffective use of audit trail

Response

The MHRA were made aware that organisation was in the process of assessing systems against MHRA Data Integrity Guidance and that there was no quick fix. Committed to address the deficiencies in phases:

- Gap Analysis: end Oct 2018
- Issue of Remediation Plan(s): end Jan 2019
- Data integrity controls in place: end Dec 2020

Case 2

MHRA inspection

MHRA GLP/GCP inspection in May 2018. The following issues were identified with the systems and controls designed to ensure the integrity and accuracy of data being generated by the Test Facility:

Summary of Major finding:

1. The generation of results from data acquired in the MassLynx software included a process step where modifications could be made to the data. The process step involved producing a text file as an output from the MassLynx software which was then inputted into Watson LIMS. However, the text file was not protected from modifications and when edited could be opened within the LIMS system with the amended data.
2. The quality assurance review of GLP and GCP data acquired by the MassLynx software was through audit of data held in Watson LIMS and flat file representations of the chromatograms printed to the NuGenesis system. This cannot be considered in isolation to be representative of the raw data or an authentic copy as they do not hold full details relating of the data acquisition or chromatography integration.

Response

1. The transfer of data files between chromatography data systems, including MassLynx, and Watson LIMS, will be investigated. We will ensure that the process is secure and that data files cannot be edited before transfer (by 31-Dec-18). An independent QC check is performed on 5% of the data on every run. As an interim measure, to address this deficiency, we propose to increase this to a check of 10% of the data on each run. Please note that no data integrity issues have been identified since XXXX was created in YYYY on the basis of a 5% check (approximately 12,500 samples). In addition;

   – We will communicate to all bioanalytical staff the doubling of the QC checking process and reinforce the need for data integrity
   – Conduct a QA audit of the QC checking process (to be conducted monthly, starting Sept, until data transfer is secured i.e.. end of year, then once every three months).

2. QA will include a review of the raw data in the MassLynx software as part of the study audit. SOP ALN-QA-012 will be updated to include this requirement. Training in this requirement will be given to all auditors, including SOP Read & Understood. Furthermore, a review of all electronic data capture systems will be undertaken to ensure that audits are conducted of the actual raw data (by 30-Sep-18).

Implementation

1. 10% QC data audit on each batch implemented (staff trained)
2. Monthly QA audit of QC process implemented
3. SOPs updated
4. Risk assessment of data flow process (Masslynx 4.0/Nugenesis 8.0/Watson 7.5 SP1) performed
5. Risk assessment of Sciex Analyst, Thermo Xcalibur, Agilent Mass Hunter (GC and ICP) in progress

Conclusion

1. MHRA GLP & GCP Certificates issued (Sep 2018). Next inspection in ~ 2 years
2. All systems fully validated with documented and dedicated application administrator, access control and audit trail.
3. Regression only performed in Watson (data transfer is peak area/PAR). Regression is disabled in CDS (Masslynx, etc.)
4. Flat file transfer is highest risk in terms of data integrity. QC process control can mitigate risk when implemented with a secure SDMS (e.g. Nugenesis)