World Health Organization

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Prequalification Team Inspection services
WHO PUBLIC INSPECTION REPORT
of the Quality Control laboratory

Part 1	**General information**
Laboratory Details	
Name of the laboratory	Testing Laboratory the Branch of the Republic State Enterprise on the Right of Economic Management "National Center for Expertise of Medicines and Medical Devices" Medical and Pharmaceutical control committee of the Ministry of Healthcare of the Republic of Kazakhstan in Karaganda City (TL)
Address of inspected laboratory	9A Bukhar Zhyrau Prospect, Karaganda City, Kraganda Region, Republic of Kazakhstan
GPS Coordinates	E:49.815847 N:73.077322
Address of corporate office, telephone number and fax number	Astana city, Imanov street, 13. Kazahstan +77172235135 www.ndda.kz
Introduction	
Dates of inspection	19 - 21 February 2024
Type of inspection	Routine
Introduction	
Brief description of testing activities	Type of analysis: Physical/ Chemical analysis Finished products: • Clarity and degree of opalescence of liquids • Degree of coloration of liquids • Relative density • pH • Refractive index • Optical rotation • Loss on drying • Osmolality • Disintegration of tablets and capsules • Dissolution test for solid dosage forms • Uniformity of content of single dosage forms • Uniformity of mass single-dose preparation • Friability of uncoated tablets Active pharmaceutical ingredients: • Clarity and degree of opalescence of liquids • Degree of coloration of liquids • pH • Relative density • Refractive index • Optical rotation • Loss on drying • Osmolality • Particulate contamination: visible particles • UV-Visible spectroscopy • Thin layer chromatography Liquid chromatography with fixed wavelength UV detector, multi-wavelength detector,

		• Particulate contamination: visible particles • Uniformity of dosage units • UV-Visible spectroscopy • Thin layer chromatography Liquid chromatography with fixed wavelength UV detector, multi-wavelength detector, fluorescence detector and conductometric detector.	fluorescence detector and conductometric detector.
	Identification	• UV-Visible spectroscopy • Thin layer chromatography • Liquid chromatography UV detector, multi-wavelength detector, fluorescence detector and conductometric detector	• UV-Visible spectroscopy • Thin layer chromatography • Liquid chromatography with fixed wavelength UV detector, multi-wavelength detector, fluorescence detector and conductometric detector.
	Assay, impurities and related substances	• UV-Visible spectroscopy • Thin layer chromatography • Liquid chromatography UV detector, multi-wavelength detector, fluorescence detector and conductometric detector	• UV-Visible spectroscopy • Thin layer chromatography • Liquid chromatography with fixed wavelength UV detector, multi-wavelength detector, fluorescence detector and conductometric detector.
General information	The Testing Laboratory (TL) of the Karaganda Branch of the Republican State Enterprise on the Basis of the Right of Economic Management National Center for Expertise of Medicinal Products and Medical Devices of the Committee for Medical and Pharmaceutical Control of the Ministry of Health of the Republic of Kazakhstan was established in 2002.		

	The National Center was established by the Decree of the Government of the Republic of Kazakhstan as of November 17, 1997 No. 1591 On the Establishment of the Republican State Public Enterprise Center for Medicinal Products «Drugs-drugs» of the Ministry of Education, Culture and Healthcare of the Republic of Kazakhstan. In 2002, It was reorganized in form of transformation into the Republican State Enterprise on the Right of Economic Management National Center for Expertise of Medicinal Products, Medical Devices and Medical Equipment of the Ministry of Health of the Republic of Kazakhstan by Decree of the Government of the Republic of Kazakhstan as of October 02, 2002 No. 1081 Selected Issues of the Republican State Public Enterprise Center for Medicinal Products «Drugs-drugs» of the Ministry of Healthcare of the Republic of Kazakhstan. The Branch was a separate structural division of the Enterprise, which had a legal entity status, seal, stamps, bank account, letterheads, logo, and other official attributes. The Branch specializes in providing services of medicinal products and medical devices quality control to private manufacturers and suppliers.
Changes since last inspection	Upon the legal changes the mandatory testing of premarketing samples ended. Accordingly, the laboratory workload dropped dramatically (150 vs. mt 600 samples/year. The acting head of the laboratory was the coordinator.
History	TL was inspected by WHO PQ Team in September 2019. TL was included in the list of prequalified laboratories from 16th March 2020
Brief report of inspection activities undertaken – Scope and limitations	
Areas inspected	• Organization and management • Quality management system • Control of documentation • Records • Data processing equipment • Personnel • Premises • Equipment, instrument, and other devices • Contracts • Reagents • Reference substances and reference materials • Calibration, verification of performance and qualification of equipment, instruments and other devices • Traceability • Incoming samples • Analytical worksheet • Validation of analytical methods • Testing • Evaluation of test results and OOS investigation • Certificate of analysis

	• Retained samples • Safety
Restrictions	The Laboratory documentation was provided in the Russian language, and the personnel spoke Russian (the official language of Kazakhstan). One interpreter was available to assist the inspection team with translation.
Abbreviations	**Meaning**
ALCOA	Attributable, legible, contemporaneous, original and accurate
API	Active pharmaceutical ingredient
CoA	Certificate of analysis
CAPA	Corrective action & Preventive action
DQ	Design qualification
EAEU	East Asia Economic Union
FPP	Finished pharmaceutical product
FTIR	Fourier transform infrared spectrophotometry or spectrophotometer
GC	Gas chromatography or Gas chromatography equipment
GMP	Good manufacturing practices
HPLC	High-performance liquid chromatography (or high-performance liquid chromatography equipment)
IQ	Installation qualification
IR	Infrared spectrophotometry
KF	Karl Fisher titration
LIMS	Laboratory information management system
MB	Microbiology
MR	Management review
N	Normality
NC	Non-conformity
NCA	National control authority
NCL	National control laboratory
NRA	National regulatory agency
OOS	Out-of-specifications test result
OQ	Operation qualification
Ph.Eur.	European Pharmacopoeia
PM	Preventive maintenance
PQ	Performance qualification
PQR	Product quality review
PQS	Pharmaceutical quality system
PT	Proficiency testing
PTS	Proficiency testing scheme
PW	Purified water
QA	Quality assurance
QC	Quality control
QCL	Quality control laboratory
QM	Quality manual
QMS	Quality management system

QRM	Quality risk management
RA	Risk assessment
RCA	Root cause analysis
SOP	Standard operating procedure
TLC	Thin layer chromatography
TOC	Total organic carbon
URS	User requirements specifications
USP	United Stated Pharmacopoeia
UV	Ultraviolet-visible spectrophotometry or spectrophotometer
VMP	Validation master plan
VS	Volumetric solution

Part 2	**Summary of findings and recommendations**

1. Organization and management

The organization and management structure of the Laboratory, including responsibility, authority, and interrelationship of the personnel, were specified in the organizational chart. There were total 14 employees in the Karaganda branch, 11 employees in the TL departments within the scope of the inspection at the time of inspection.

The department, under the leadership of the head, is directly subordinate to the Deputy General Director for Medicines - Member of the Board (according to the organizational structure), while the coordination of work in terms of conducting laboratory tests is carried out by the Department Coordinator.

The Branch carried out its activities based on the principles of legality, honesty, impartiality (fairness), and exclusion of conflicts of interest in accordance with Policy in the Field of the Management System. The management and Heads of structural divisions of the TL were personally responsible for ensuring partiality (impartiality) and exclusion of conflicts of interest in the performance of their activities (official duties). To ensure impartiality and avoid conflicts of interest, all employees of the TL, in accordance with Personnel Management policy, signed the Declaration on confidentiality, objectivity, and exclusion of conflicts of interest form. The procedures were adequately defined in the Quality Manual.

The branch ensured confidentiality of information in accordance with the legislation of the EAEU and the Republic of Kazakhstan, as well as procedure of Information Security and internal regulatory documents of the Company.

TL had accreditation which certified that TL meets the requirements of GOST ISO/IEC 17025-2019 (ISO/IEC 17025:2017) standards, as well as GPPQCL/WHO requirements. GOST ISO/IEC 17025-2019 accreditation certificate was issued 06/12/2019 and valid until 06/12/2024.

2. Quality management system (QMS)

Quality Manual was based on the requirements of the legislation of the Republic of Kazakhstan, GOST ISO/IEC 17025 -2019 (ISO/IEC 17025:2017) and ISO 9001:2015, GPPQCL/WHO requirements, as well as regulatory documents of the Enterprise.

Quality Management System of all branches was led by QMS the head from head office in Astana.

A Quality Manual was available.

Quality policy was explained in the Policy in the Field of the Management System.

Business continuity
Business continuity plan was explained in the procedure Business continuity and incident management. Business continuity working group was responsible to ensure business continuity.

Business continuity action plan was made by working group retrospectively and also prospectively. After the action plan was approved and saved on server, training was provided to all staff members.

Complaints
During inspection SOP Complaints and claims was under review during inspection. Complaints and claims were received and investigated by corporate security and information department. responsible persons were nominated for investigation. Investigation was carried out by investigation commission. Complaints in the branch were received by the Head of the branch. Complaints and claims logbook was maintained by QA.

Trending of data
TL had established and implemented the SOP Ensuring the quality of results (intra-laboratory control, inter-laboratory comparisons, trend analysis). SOP explained processes and requirements for proficiency testing and collaborative trails.

Tools used for trend analysis were:
- Pareto chats
- Control charts

Trend analysis were carried out using validated and secured excel spreadsheets.

Proficiency testing (PT)
The Testing Laboratory of the Branch in the city of Karaganda participated in the Inter-laboratory Comparison Performance between the Testing Laboratories of the city of Almaty and the city of Taraz of the RSE at the National Center for Expertise of Medicines and Medical Devices of the Committee for Medical and Pharmaceutical Control of the Ministry of Health of the Republic of Kazakhstan in accordance with the annual Participation Plan.

Management review
Management reviews were performed annually, covering audit reports, complaints, and proficiency testing outcomes. The last Management review took place on February 2024, covering 2023 activities. The list of participants was provided. An extensive report was provided.

Risk Management Plan
Risk management policy was explained. Risks were identified, and the mitigation measures were defined.
Report of risk analysis was carried out biannually. Trending of risks was done annually and reported during Management review meeting. Risk register for 2024 was available and presented.

Risk action plan for undesirable and unacceptable risks were prepared according to the risk register at least annually.

Change control (CC)
Change requests were managed in accordance with the SOP Management of changes and improvements in laboratory activities.

In case of significant change controls, action plan was created specifying requested actions, responsible persons and deadline for closing CC. According to the SOP any delays should be acknowledged and reported to the QA division, further on QA reported to the Head of the TL. Change controls register was presented.

Audits:
The laboratory activities were systematically and periodically audited. Internal audits were performed in accordance with procedure Internal audits. Internal audit schedule for 2024 was presented. According to the SOP internal audits should be carried out at least annually. Internal audits were conducted following requirements of internal policies and procedures, as well as with the requirements of ISO / IEC 17025, GPPQCL / WHO, and EDQM/OMCL guidelines. Qualification requirements for internal auditors were specified. List of qualified internal auditors was managed by QMS department in Astana. Audits were performed using checklists. Deviations from internal policy requirements, procedures, or standards were identified and corrected. Corrective actions taken in relation to an internal audit were analyzed and evaluated. CAPAs were proposed by Quality specialist and approved by Head of the branch. Implementation of actions were carried out according to the procedure Management of nonconformities, corrective and/or preventive action.

Management of non-conformities of laboratory activities was explained. All non-conformities were recorded in logbook by specialist QA. Non-conformity No XX and related documents, including CAPA were checked.

Handling of deviations
Handling of deviations was explained in procedure Management of nonconformities and corrective action. The procedure was applicable to any of deviations.

Dealing with non-conformities in laboratory was also explained.

CAPAs were applicable to all nonconformities.

3. Control of documentation

Control of documentation was explained in the procedure Documented Information Management. Procedure explained uniform requirements for the procedure for developing, agreeing, approving, putting into effect, registering, replicating, executing, storing, updating, amending, reviewing, canceling, and destroying documented information of the management system, including the integrated management system and its processes in the different divisions of the Ministry of Health of the Republic of Kazakhstan. The process of forming the nomenclature of cases, registration, and formation of cases, their destruction or transfer to permanent storage was defined in the relevant internal regulatory document of the Enterprise.

Each SOP had a unique identification number, version number, date of implementation, effective date and reference to the previous version.

Laboratory Quality management documents master list was available in form of validated excel spreadsheet and presented during inspection. According to the procedure Documented Information Management, documents should be revised every 5 years or as necessary.

SOPs were uploaded and maintained in an internal server, i.e., the QMS documentation system by Head office QA. All staff had read-only access to the system and the documents. The Head Office QA department managed the system.

In case the new document was introduced or revised, notification email was sent out to all staff members. Before any SOP was implemented, initial self-training was required. The self-training was documented in the individual training binders and verified by their signatures. In case additional training was required, the specialist QA was responsible for providing the training.

4. Records

Records were made of analytical tests, including calculation and derived data, method validations/ verifications, instrument use, calibrations and maintenance, and sample receipt in logbooks containing consecutively numbered pages.

Records management was explained. Records were kept in the laboratory archive, before being sent to the HQ archive facility. The documentation was indexed and archived in the facility as per the local requirements. Specialist QA was responsible for documents archiving. Retrieval of documents and placing them back to archive was recorded in separate log book.

Testing records management in laboratory was explained. According to the procedure testing records (analytical worksheets, equipment's usage, copy of testing reports) were stored 1 year after specified documentation retention time. Documents retention time was specified by Ministry of culture and sport order.

5. Data processing equipment

An inventory of all computerized systems was available with the information about unique identification, purpose, validation status, physical or storage location of the software and related documentation, responsible or contact person.

Electronic data was protected from unauthorized access. Computer-generated, time-stamped audit trails for electronic records were maintained. Electronic data was backed up at appropriate regular intervals according to a documented procedure.

Management of computer hardware and software, including the integrity and confidentiality of the input and collection, storage, transmission, and processing of data, was described in the procedures Ensuring Data Integrity and Validation of computerized systems.

To ensure the integrity of the instrument's software system and analytical data, computers belonging to the instruments were connected to the networked server but not to the Internet.

6. Personnel

According to the LIF Karaganda Territorial Branch employed fourteen (14) analytical and support staff responsible for providing quality testing services to the medical and pharmaceutical control committee of the Ministry of Health to support registration, market authorizations, lot release, and continuous quality monitoring of medicines and related products. TL itself employed eleven (11) technical and supportive staff members.

TL training plan for 2024 was presented. Training effectiveness was evaluated by tests or interviews.

Instruction Qualification and re-qualification of laboratory personnel explained following qualifications:
- Upon recruitment
- When expanding or changing responsibilities
- Re-qualification
- Loss of qualification

Training file of new specialist category 3 and competency matrix were checked. Competency matrix was available for all specialists.

The Laboratory had personnel with the necessary education, training, technical knowledge, and experiences for their assigned functions. The Laboratory maintained current job descriptions for all personnel involved in tests and/or calibrations, validations, and verifications. The Laboratory maintained also records of all technical personnel, describing their qualifications, training, and experience. Staff undergoing training was assessed on completion of the training.

Job description of Coordinator was checked. Coordinator was responsible, but not limited for:
- Sample movement
- Checking analytical worksheets and test results

In case of coordinator absence, deputizing was performed by specialist 1st category; this was also specified in 1st category specialist job description.

In addition to the job descriptions, detailed protocol of job assignments was available. According to this protocol Coordinator was responsible but not limited for:
- Management of calibration/verification
- Quarterly intra-laboratory control
- Environmental monitoring
- Incoming sample management (registration, work allocation, storage, accountability, identification (labeling), utilization

Laboratory duties were also specified in duties matrix, listing responsible persons and responsibilities.

7. Premises

The laboratory facilities were of suitable size and design to suit the functions and to perform the operations to be conducted in them.

Separate storage facilities and refrigerators were maintained for the secure storage of samples, retained samples, reagents, laboratory accessories, and reference substances, if necessary, under refrigeration (2-8°C). The environmental conditions of these storages were monitored and controlled.

Archive room was provided for storage of all documents. Archive facility was locked, access was granted only to Specialist QA and in her absence to the Coordinator. QA was responsible for monitoring T and RH.

8. Equipment, instrument, and other devices

The laboratory had the required test equipment, instruments, and other devices for the correct performance of the tests and/or calibrations, validations, and verifications within the scope of its activities, including the preparation of samples and the processing and analysis of test and/or calibration data.

9. Contracts

Purchasing of external goods and services was explained. TL was only accountable for providing descriptions of design and materials related to the service providers and supplies. Procurement of goods was done on government level, following government legislation. A list of service providers that should not be used due to non-compliance was available in the government portal.

The Purchasing department from Almaty branch was responsible for managing supplying orders to the branches through a digital portal.

The Laboratory had not subcontracted any testing at the time of inspection.

10. Reagents

The reagents used were of appropriate quality and correctly labelled. Labels of reagents contained information about content, manufacturer, date received and date of opening of the container, concentration, if applicable, storage conditions, expiry date, and retest date, as justified.

Handling of reagents was explained in the procedure Handling of inventory (storage, distribution, utilization). Data safety sheets were available for all reagents. Reagents were distributed to the laboratories upon request.

According to the protocol of job assignments, Specialist 1st category was responsible for:

- Preparation of reagents/indicators, volumetric solutions
- Registration, accountability, storage and distribution of reagents and reference materials

Handling of reagents and media was explained.

Reagent solutions prepared in the laboratory contained information about the name of the reagent, date of preparations and initials of technician or analyst, expiry date or retest date, as justified, and concentration, if applicable.

Volumetric solutions prepared in the laboratory were labelled with the name, molarity, date of preparation and technician initials, date of standardization and technician initials, standardization factor and expiry date. Expiry date was specified based on pharmacopoeia requirements or manufactures' specifications.

Water quality was regularly verified to ensure that the various grades met the appropriate specifications. Laboratory used purified water and HPLC grade water.

HPLC grade water was generated by Millipore system and used to prepare mobile phases and sample preparations.

Purified water was generated by Sartorius system and used for reagents/solutions preparation and rinsing of laboratory glassware after cleaning.

11. Reference substances

The reference standards were provided by the applicant together with the respective certificate of analysis, already labelled. The Laboratory labelled the RS containers with an internal ID.

SOP Handling of reference standards was checked. To improve accountability of reference standards additional aisles: quantity of the incoming reference sample and quantity of the reference sample after analysis were introduced to the logbook.

The identification number was recorded on the analytical worksheets whenever the reference substance was used. The receipt, storage and usage records of tenofovir reference standard were discussed.

12. Calibration, verification of performance and qualification of equipment, instruments and other devices

Each instrument was uniquely identified. Labels indicated the status of the calibration and the date when recalibration was due. The equipment calibration/qualification plan was available.

Equipment management was explained. Laboratory equipment internal calibration and preventive maintenance was carried out by the Almaty branch Maintenance department. Laboratory equipment calibration was performed following EDQM guidelines. In case EDQM guidelines were not available, calibration SOPs were prepared based on pharmacopoeias requirements and equipment manuals. Equipment was also calibrated externally.

Equipment daily verification was delegated to the laboratory staff.

Equipment calibration, qualification and preventive maintenance schedules were available and presented for 2024.

Instrument logbooks were kept for items of equipment with information to identify the device, current location, maintenance carried out, history of damage, malfunction, modification, or repair. Usage of the instruments were recorded.

SOP Chromatography column management was available. Upon receiving the new column, verification was carried out following EDQM guidelines. Annual column qualification schedule was available.

SOP Laboratory glassware management was available. Laboratory used only class A volumetric glassware.

The instrument usage and the qualification details of the following instrument were discussed:

- Dissolution apparatus
- HPLC
- Balance

The standard weights (10 mg, 100 mg, 200 mg, 200 g) used for balance calibration were certified.

13. Traceability

Test results were traceable to reference substances when applicable, equipment, instruments and reagents used.

14. Incoming samples

The laboratory was not responsible for sampling of products.

Samples were collected and sent to the TL by three authorities depending on the source of samples:

The samples provided through registration and variation applications were sent to the Applicant Service center located at Abylaikhan avenue, 63, Almaty, Kazakhstan. The Marketing Authorization applicant or distributors provided the samples to:

- Pharmacy committee (in case of dubious products)
- Other medical centers (in case of counterfeit products).

Sample management was explained. Procedure explained management of the following samples:

- Incoming samples: receipt, registration, distribution
- Retain samples
- Samples for destruction

Initially samples were received at Applicants service center and collected by responsible person for samples receiving unit. Incoming samples were manually registered in the sample logbook. Unique identification was assigned to each and every sample received and traceable through all documentation.
There were two forms of test requests which accompanied each sample submitted to the laboratory:

- Marketing authorization samples
- Market surveillance samples
- Doubt samples from the market
- Inter-laboratory samples
- Est Asia economical union samples (not received)

The test requests were reviewed by the Coordinator to ensure that the laboratory had the resources to meet the request target and that the selected tests/methods were capable to meet the applicable requirements.

All delivered samples and enclosed documents were assigned a unique registration number. The samples were registered in the respective logbook in chronological order. A register was kept in which the following information was recorded:

- Registration number of the sample
- Date of receipt
- Application number
- Type of sample
- Sample name
- Manufacturer
- Country of manufacturing
- TL ID number
- Expiry date
- Storage conditions
- Discretion of the sample
- Quantity in total
- Unit to which the sample was forwarded
- Quantity distributed to the units
- Date of distribution
- Signature of person who collected the sample
- Date of test report

Coordinator was responsible for receiving samples and performing a visual inspection to ensure that labelling conformed with the information in the test request at the Applicant Service Center. For samples where the storage conditions were critical, the temperature of the incoming shipment container was checked.

Prior to testing, the samples were stored safely; taking into account the storage conditions The whole quantity of the incoming sample was issued to the analyst. After the completion of the analysis, the remaining samples were returned to the sample storage area and documented on the respective form to be retained with the rest of the samples in another storage area.

Upon arrival to the TL, Coordinator - responsible person for sample handling checked all information delivered together with the sample. Afterwards samples were moved to specific storage places. Access to the sample storage places was restricted to responsible person.

Samples for the testing were distrusted by the Coordinator according to competency matrix.

The details of sample Taftenof 25 mg film-coated tablet were discussed. There were four reference standards received together with the sample.

The incoming samples were distributed to the analysts in a form containing the sample issuance and reconciliation data.

The returned samples were stored for 1 month or 3 months (in case of OOS result).

Storage
The samples were stored safely, taking into account the storage conditions. The storage conditions, including temperature and humidity were monitored using a calibrated thermometer. Samples were returned to the storage after the completion of the analysis.

15. Analytical worksheet (AWS)

Procedure explained Records management in laboratory and was applicable, but not limited to:

- Analytical worksheets
- Log books
- Spreadsheets
- Test reports

The analysts recorded information about samples, test procedures, calculations, and results in analytical worksheets completed with raw data. Practice in the laboratory was that one analyst carried out all required tests.

Analytical worksheet XX was checked and contained the following information:

- The date on which the analysis was started and completed
- A reference to specifications and full description of the test methods, by which the sample was tested, including the limits; identification of test equipment used; reference substances, reagents, and solvents employed
- Documentation called analytical normative document with the respective specification for testing was available for each medicine. For registration samples, all the tests should be performed

- Interpretation of the results and calculations
- The conclusion whether or not the sample was found to comply with the specifications
- Deviation from the prescribed procedures, if any

All values obtained from each test, including blank results, were entered on the analytical worksheet, audit trails were attached.

The completed analytical worksheets were signed by the responsible analyst, verified by another analyst, approved, and signed by the Coordinator.

Analytical worksheets were purchased preprinted. Each individual worksheet had unique identification number. Upon arrival AWS were checked for correct ID numbers. Worksheets were received and issued by Specialist QA. Issuance was register in logbook.

In case corrections, the old information was deleted by putting a single line through it; it should not be erased or made illegible. Alterations were signed by the person making the corrections and the date for the changes inserted. The reason for the change was also given.

16. Validation of analytical procedures

The procedures employed for testing were submitted by the applicant and verified by the assessors in the National normative standard pharmacopeia. The Laboratory did not perform any method validation.

The method verification policy was described. Method verification was carried out every time laboratory performed the test.

17. Testing

Test procedures were described in the respective National standard normative documents and allowed analysts to perform the analysis in a reliable manner.

During the course of inspection inspectors followed sample XX Taftenof 25 mg film-coated tablet.

18. Evaluation of test results and OOS investigation

SOP Evaluation of results outside the requirements of specifications was in place describing the conduct of investigations of OOS test results. OOS were register was paper based. When a doubtful result (suspected OOS result) was identified, the supervisor and the analyst undertook a review of the procedures applied during the testing process. Investigations were carried out according to phase 1A: Obvious lab error, 1B: lab investigations using check list, to establish laboratory error or not, hypothesis testing and Phase II: retesting.

Procedure Test results was available. Tests were recorded on analytical worksheets. Initially all test results and calculations were checked by another analyst, afterwards records, test results and calculations were checked and approved by the Coordinator. SOP also explained rounding of results and dealing with borderline results. According to the procedure once in a quarter selective control was performed by Specialist QA choosing full document package.

Calculations were done using hand calculators.

The test reports further included the following information:
- The background and the purpose of the testing
- Reference to the specifications and methods used
- The results of all tests performed
- The statement whether the sample complies with the requirements

19. Certificate of analysis

Test report was used as certificate of analysis to be sent to the "Department of specialized Expertise" located in the Head office in Astana.

Information in the test report was entered by specialist who performed tests, afterwards test report was checked and signed by Coordinator. Finally, the test report was checked and signed by Head of the branch.

The following information was captured in the test report:
- Sample ID number
- Name of the customer
- Type of analysis
- Reason for analysis
- Manufacturer
- Lot number
- Manufacturing date
- Expiry date
- Number of samples
- The date on which the tests were started and completed
- Normative documents
- STP
- Test results
- A conclusion as to whether or not the sample was found to be within the limits of the specification

20. Retained samples

Retained sample management was explained. Retained samples were kept in their final pack and retained as specified, depending on the type of sample. For example Marketing authorization samples were kept 1 months after Testing report. In case of OOS samples were kept for 3 months.

In case samples would be received on behalf of WHO retention time was specified:
- Expiry date + 1 year or 5 years which is longer

21. Safety

Staff was wearing laboratory coats. Safety showers and equipment for rinsing of eyes were installed. Rubber suction bulbs were used on manual pipettes. Safety data sheets were available.

Miscellaneous	
Assessment of the Laboratory Information File	The uncontrolled English version of the Laboratory Information File was submitted for WHO prequalification.

Annexes attached	N/A

Part 3 - Conclusion

Based on the areas inspected, the people met and the documents reviewed, and considering the findings of the inspection, including the observations listed in the Inspection Report **Testing Laboratory the Branch of the Republic State Enterprise on the Right of Economic Management "National Center for Expertise of Medicines and Medical Devices" Medical and Pharmaceutical control committee of the Ministry of Healthcare of the Republic of Kazakhstan in Karaganda City**, located at **9A Bukhar Zhyrau Prospect, Karaganda City, Kraganda Region, Republic of Kazakhstan** was considered to be operating at an acceptable level of WHO Good Practices for Pharmaceutical Quality Control Laboratories guidelines.

All the non-compliances observed during the inspection that were listed in the full report as well as those reflected in the WHOPIR, were addressed by the manufacturer, to a satisfactory level, prior to the publication of the WHOPIR

This WHOPIR will remain valid for 3 years, provided that the outcome of any inspection conducted during this period is positive.

Part 4	**List of WHO Guidelines referenced in the inspection report**

1. WHO Good Practices for Pharmaceutical Quality Control Laboratories. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-fourth Report. Geneva, World Health Organization, 2010 (WHO Technical Report Series, No. 957), Annex 1.
Short name: WHO GPPQCL Guidelines or TRS No. 957, Annex 1
https://www.who.int/publications/m/item/trs957-annex1

2. WHO good practices for pharmaceutical microbiology laboratories. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fifth Report Geneva, World Health Organization, 2011 (WHO Technical Report Series, No. 961), Annex 2.
Short name: WHO TRS No. 961, Annex 2
https://www.who.int/publications/m/item/trs961-annex2

3. WHO guidelines for sampling of pharmaceutical products and related materials. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Thirty-ninth Report. Geneva, World Health Organization, 2005 (WHO Technical Report Series, No. 929), Annex 4.
Short name: WHO TRS No. 929, Annex 4
https://www.who.int/publications/m/item/annex-4-trs-929

4. Guideline on data integrity. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Fifty-fifth Report Geneva, World Health Organization, 2021 (WHO Technical Report Series, No. 1033), Annex 4.
Short name: WHO TRS No. 1033, Annex 4
https://www.who.int/publications/m/item/annex-4-trs-1033

5. WHO good manufacturing practices for pharmaceutical products: main principles. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-eight Report Geneva, World Health Organization, 2014 (WHO Technical Report Series, No. 986), Annex 2.
Short name: WHO GMP guidelines or TRS No. 986, Annex 2
https://www.who.int/publications/m/item/trs986-annex2

6. WHO good manufacturing practices for active pharmaceutical ingredients. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-fourth Report. Geneva, World Health Organization, 2010 (WHO Technical Report Series, No. 957), Annex 2.
Short name: WHO TRS No. 957, Annex 2
https://www.who.int/publications/m/item/annex-2-trs-957

7. WHO Good Practices for Pharmaceutical Products Containing Hazardous Substances. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-fourth Report. Geneva, World Health Organization, 2010 (WHO Technical Report Series, No. 957), Annex 3.
Short name: WHO TRS No. 957, Annex 3
https://www.who.int/publications/m/item/trs957-annex3

8. WHO good manufacturing practices for sterile pharmaceutical products. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fifth Report Geneva, World Health Organization, 2011 (WHO Technical Report Series, No. 961), Annex 6.
Short name: WHO TRS No. 961, Annex 6
https://www.who.int/docs/default-source/medicines/norms-and-standards/guidelines/production/trs961-annex6-gmp-sterile-pharmaceutical-products.pdf

9. WHO guidelines on transfer of technology in pharmaceutical manufacturing WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fifth Report Geneva, World Health Organization, 2011 (WHO Technical Report Series, No. 961), Annex 7.
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