

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	<i>Bulletin 19-1</i>	

SECTION L QUALITY ASSURANCE

NT-L1.000 QUALITY ASSURANCE PROGRAM

All NADOs shall have a *QA Program*.

Current (2nd Edition)

NT-L1.100 BASIC ELEMENTS

The *QA program* shall include, at a minimum:

- 1) designating and managing *quality control* functions, including:
 - a) *environment monitoring* at designated intervals;
 - b) performing periodic equipment and facility inspections;
 - c) reviewing equipment monitoring *records* for maintenance within specified *tolerance limits*, and reviewing *records* of other equipment or *preparation* functions that have specified *tolerance limits*;
 - d) performing *qualification* of reagents, supplies, materials, instruments, and equipment when deemed critical or applicable; and (NT-E2.300)
 - e) monitoring laboratory performance, if applicable.
- 2) *establishing* and maintaining *procedures* for monitoring and controlling processes to ensure that the specified requirements continue to be met;
- 3) performing *equipment qualification studies* as necessary;
- 4) establishing purchasing controls;
- 5) establishing procedures for implementing *corrective action* and *preventive action* and taking action when appropriate. The *procedures* shall include requirements for:
 - a) analyzing sources of *quality* data to identify existing and potential causes of *nonconforming NAM*, or other *quality* problems. Appropriate statistical methodology shall be employed where necessary to detect recurring *quality* problems;
 - b) investigating the cause of *nonconformities* relating to *NAM*, processes, and the *quality system*;

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	<i>Bulletin 19-1</i>	

- c) identifying the action(s) needed to correct and prevent recurrence of *quality* problems;
 - d) *verifying* or *validating* the *corrective action* and *preventive action* to ensure that such action is effective and does not adversely affect released *NAM*;
 - e) implementing and *recording* changes in methods and *procedures* needed to correct and prevent identified *quality* problems;
 - f) ensuring that information related to *quality* problems is disseminated to those directly responsible for assuring the *quality* of *NAM* or the prevention of such problems; and
 - g) submitting relevant information on identified *quality* problems, as well as *corrective action* and *preventive actions*, for management review;
- 6) reviewing as applicable at each *NADO* involved, *donor* screening, *authorization*, *acquisition*, and *preparation records*;
- 7) approving, as applicable, all *preparation records* and *relevant medical records* prior to release of *NAM* for education and/or research;
- 8) *establishing* procedures for the documentation of formal conclusions of all *accidents*, *error*, *complaints*, and returns of *NAM* are formally concluded and documented;
- 9) maintaining documentation including, but not limited to:
- a) master copy of current *SOPM*;
 - b) *records* of names, *signatures*, initials, or identification codes and inclusive dates of employment for those authorized to perform or review tasks (e.g., onsite or at a central location);
 - c) reports and conclusions of *process validation* and *equipment qualification studies*;
 - d) *records* of supply and reagent acceptance or rejection;
 - e) archived documents; and
 - f) master list of preprinted *labels* when applicable.
- 10) *establishing a procedure* to evaluate training and competency of personnel and, requiring appropriate training concerning any modifications to the *SOPM*;
- 11) maintaining *labeling* and *labeling material* controls; and

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	Bulletin 19-1	

12) Requiring a process for sharing information with other *NADOs banks* that are known to have *acquired* and/or received *NAM tissue* from the same *donor*.

With amendments

NT-L1.100 BASIC ELEMENTS

The *QA program* shall include, at a minimum:

- 1) designating and managing *quality control* functions, including:
 - a) *environment monitoring* at designated intervals, **if applicable**;
 - b) performing periodic equipment and facility inspections;
 - c) reviewing equipment monitoring *records* for maintenance within specified *tolerance limits*, and reviewing *records* of other equipment or *preparation* functions that have specified *tolerance limits*;
 - d) performing *qualification* of reagents, supplies, materials, instruments, and equipment when deemed critical or applicable **(NT-E2.300)**; and ~~(NT-E2.300)~~
 - e) monitoring laboratory **testing** performance, if applicable.
- 2) *establishing* and maintaining *procedures* for monitoring and controlling processes to ensure that the specified requirements continue to be met;
- 3) performing *equipment qualification studies* as necessary;
- 4) establishing purchasing controls;
- 5) establishing procedures for implementing *corrective action* and *preventive action* and taking action when appropriate. The *procedures* shall include requirements for:
 - a) analyzing sources of *quality* data to identify existing and potential causes of *nonconforming NAM*, or other *quality* problems. Appropriate statistical methodology shall be employed where necessary to detect recurring *quality* problems;
 - b) investigating the cause of *nonconformities* relating to *NAM*, processes, and the *quality system*;
 - c) identifying the action(s) needed to correct and prevent recurrence of *quality* problems;
 - d) *verifying* or *validating* the *corrective action* and *preventive action* to ensure that such action is effective and does not adversely affect released *NAM*;

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	<i>Bulletin 19-1</i>	

- e) implementing and *recording* changes in methods and *procedures* needed to correct and prevent identified *quality* problems;
- f) ensuring that information related to *quality* problems is disseminated to those directly responsible for assuring the *quality* of *NAM* or the prevention of such problems; and
- g) submitting relevant information on identified *quality* problems, as well as *corrective action* and *preventive actions*, for management review;

~~6) reviewing as applicable at each *NADO* involved, *donor screening, authorization, acquisition, and preparation records*;~~

~~7) approving, as applicable, all *preparation records* and *relevant medical records* prior to release of *NAM* for education and/or research;~~

~~8) establishing procedures for the documentation of formal conclusions of all *accidents, error, complaints*, and returns of *NAM* are formally concluded and documented;~~

~~9) maintaining documentation including, but not limited to:~~

- ~~b) master copy of current *SOPM*;~~
- ~~b) *records* of names, *signatures*, initials, or identification codes and inclusive dates of employment for those authorized to perform or review tasks (e.g., onsite or at a central location);~~
- ~~c) reports and conclusions of *process validation* and *equipment qualification studies*;~~
- ~~d) *records* of supply and reagent acceptance or rejection;~~
- ~~g) archived documents; and~~
- ~~h) master list of preprinted *labels* when applicable.~~

~~10) establishing a *procedure* to evaluate training and competency of personnel and, requiring appropriate training concerning any modifications to the *SOPM*;~~

~~11) maintaining *labeling* and *labeling material* controls; and~~

~~12) establishing **Requiring** a process for sharing information with ~~other *NADOs*~~ *transplant Tissue Banks* that are known to have *acquired and/or received NAM* tissue from the same *donor*.~~

As amended

NT-L1.100 BASIC ELEMENTS

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	<i>Bulletin 19-1</i>	

The *QA program shall* include, at a minimum:

- 1) designating and managing *quality control* functions, including:
 - a) *environment monitoring* at designated intervals, if applicable;
 - b) performing periodic equipment and facility inspections;
 - c) reviewing equipment monitoring *records* for maintenance within specified *tolerance limits*, and reviewing *records* of other equipment or *preparation* functions that have specified *tolerance limits*;
 - d) performing *qualification* of reagents, supplies, materials, instruments, and equipment when deemed critical or applicable (NT-E2.300); and
 - e) monitoring laboratory testing performance, if applicable.
- 2) *establishing* and maintaining *procedures* for monitoring and controlling processes to ensure that the specified requirements continue to be met;
- 3) performing *equipment qualification studies* as necessary;
- 4) establishing purchasing controls;
- 5) establishing procedures for implementing *corrective action* and *preventive action* and taking action when appropriate. The *procedures shall* include requirements for:
 - a) analyzing sources of *quality* data to identify existing and potential causes of *nonconforming NAM*, or other *quality* problems. Appropriate statistical methodology *shall* be employed where necessary to detect recurring *quality* problems;
 - b) investigating the cause of *nonconformities* relating to *NAM*, processes, and the *quality system*;
 - c) identifying the action(s) needed to correct and prevent recurrence of *quality* problems;
 - d) *verifying* or *validating* the *corrective action* and *preventive action* to ensure that such action is effective and does not adversely affect released *NAM*;
 - e) implementing and *recording* changes in methods and *procedures* needed to correct and prevent identified *quality* problems;
 - f) ensuring that information related to *quality* problems is disseminated to those directly responsible for assuring the *quality* of *NAM* or the prevention of such problems; and

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	Bulletin 19-1	

- g) submitting relevant information on identified *quality* problems, as well as *corrective action* and *preventive actions*, for management review;
- 6) approving, as applicable, all *preparation records* and *relevant medical records* prior to release of *NAM* for education and/or research;
- 7) *establishing* procedures for the documentation of formal conclusions of all *accidents, error, complaints*, and returns of *NAM* are formally concluded and documented;
- 8) maintaining documentation including, but not limited to:
- c) master copy of current *SOPM*;
 - b) *records* of names, *signatures*, initials, or identification codes and inclusive dates of employment for those authorized to perform or review tasks (e.g., onsite or at a central location);
 - c) reports and conclusions of *process validation* and *equipment qualification studies*;
 - d) *records* of supply and reagent acceptance or rejection;
 - i) archived documents; and
 - j) master list of preprinted *labels* when applicable.
- 9) *establishing a procedure* to evaluate training and competency of personnel and, requiring appropriate training concerning any modifications to the *SOPM*;
- 10) maintaining *labeling* and *labeling material* controls; and
- 11) *establishing* a process for sharing information with *transplant Tissue Banks* that are known to have *acquired* tissue from the same *donor*.

Announcement Date: January 31, 2019 (Bulletin 19-1)

Effective Date: July 31, 2019 (6-month implementation period)

Current (2nd Edition)

NT-L1.200 QUALIFICATION, VERIFICATION AND VALIDATION REQUIREMENTS

Each *NADO* shall develop, document, and implement *qualification* or *verification*, of critical components which may include:

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	<i>Bulletin 19-1</i>	

- a) facilities;
- b) processes;
- c) equipment;
- d) reagents;
- e) *labels; and*
- f) containers.

Each *NADO* shall develop, document, and implement protocols for the *verification*, or *validation* of significant components which include:

- a) Packaging materials, and
- b) *electronic* identification and *tracability* systems.

Determination of which elements or items that *must* be qualified, verified, or validated shall be made by the *NADO* as defined in *established* policy or *procedure*.

With amendments

NT-L1.200 QUALIFICATION, VERIFICATION AND VALIDATION REQUIREMENTS

Each *NADO* shall develop, document, and implement *qualification* or *verification*, of critical components *as defined and established by the NADO* which may include:

- a) facilities;
- b) processes;
- c) equipment;
- d) reagents;
- e) *labels;*
- f) *vendors; and*
- g) ~~containers~~ *packages.*

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	Bulletin 19-1	

Each *NADO shall* develop, document, and implement protocols for the *verification*, or *validation* of significant components which include:

- a) ~~packaging materials~~ containers, and
- b) *electronic* identification and *tracability* systems.

Determination of which elements or items that *must* be qualified, verified, or validated shall be made by the *NADO* as defined in *established* policy or *procedure*.

As amended

NT-L1.200 QUALIFICATION, VERIFICATION AND VALIDATION REQUIREMENTS

Each *NADO shall* develop, document, and implement *qualification* or *verification*, of critical components as defined and established by the *NADO* which may include:

- a) facilities;
- b) processes;
- c) equipment;
- d) reagents;
- e) *labels*;
- f) vendors; and
- g) packages.

Each *NADO shall* develop, document, and implement protocols for the *verification*, or *validation* of significant components which include:

- a) containers, and
- b) *electronic* identification and *tracability* systems.

Determination of which elements or items that *must* be qualified, verified, or validated shall be made by the *NADO* as defined in *established* policy or *procedure*.

Announcement Date: January 31, 2019 (Bulletin 19-1)

Effective Date: July 31, 2019 (6-month implementation period)

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	Bulletin 19-1	

NT-L1.210 VALIDATION METHODS

Where *validation* is required or desired, evidence supporting *validation must* be demonstrated. Acceptable methods to demonstrate *validation* are:

- 1) studies conducting challenges such as temperature, time, as appropriate, and/or other factors that potentially affect user specifications;
- 2) *verification* of an *established procedure* or process known to be effective, with implementation of the same *procedure* or process, without modification; as specified in NT-L1.230. If any steps are modified, all such modifications *shall* undergo documented evaluation (e.g., through a risk assessment) for potential impact, and a potential result *may* be that a *re-validation* is necessary per method 1 of this section.

Current (2nd Edition)

NT-L1.220 PACKAGING QUALIFICATION AND TRANSPORT/SHIPPING VALIDATION

Packages used to ship *NAM* in-process, or to *distribute prepared NAM* shall be *qualified*. The method(s) used *shall* demonstrate that the packages can maintain the required conditions to meet user expectations and any applicable transport regulations.

With amendments

NT-L1.220 ~~PACKAGING~~ CONTAINER QUALIFICATION AND TRANSPORT/SHIPPING VALIDATION

~~*Packages*~~ *Containers* used to ship *NAM* in-process, or to *distribute prepared NAM* shall be *qualified*, *when being distributed via common carrier*. The method(s) used *shall* demonstrate that the ~~*packages container*~~ can maintain the required conditions to meet user expectations and any applicable transport regulations.

As amended

NT-L1.220 CONTAINER QUALIFICATION AND TRANSPORT/SHIPPING VALIDATION

Containers used to ship *NAM* in-process, or to *distribute prepared NAM* shall be *qualified*, *when being distributed via common carrier*. The method(s) used *shall* demonstrate that the *container* can maintain the required conditions to meet user expectations and any applicable transport regulations.

Announcement Date: January 31, 2019 (Bulletin 19-1)

Effective Date: July 31, 2019 (6-month implementation period)

NT-L1.230 VERIFICATION METHODS

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	Bulletin 19-1	

Where *verification* is required or desired, evidence supporting verification *must* be produced by one or both of the following methods:

- 1) review, examination, inspection, or testing of a defined number of samples (the justification of the number of samples *must* be documented) in order to *establish* and document that the *NAM*, service, or system meets specified regulatory or technical standards; or
- 2) *verification* of the implementation of an *established*, previously *validated*, *procedure* or process without modification; *such verification shall* be conducted using a defined number of samples (the justification of the number of samples *must* be documented, however statistical justification is not required).

Current (2nd Edition)

NT-L1.300 PURCHASING CONTROLS

For contracted services involving *donor* screening, *donor* eligibility, *acquisition*, *preparation*, *storage*, and/or *distribution*, refer to NT-B1.500 for additional requirements. Also refer to specific information at NT-B1.600 for contracted and non-contracted laboratory services for infectious disease testing.

Each *NADO shall establish* and maintain *procedures* to ensure that purchased or otherwise received products and services, including testing services, conform to specified requirements, if any. Each *NADO shall* establish and maintain the requirements, including *quality* requirements that *must* be met *by* suppliers, contractors, and consultants. Each *NADO shall*:

- 1) evaluate and select potential suppliers, contractors, and consultants on the basis of their ability to meet specified requirements, including quality requirements. The evaluation *shall* be documented.
- 2) define the type and extent of control to be exercised over the product, services, suppliers, contractors, and consultants, based on the evaluation results.
- 3) *establish* and maintain *records* of acceptable suppliers, contractors, and consultants. Each *NADO shall* establish and maintain data that clearly describe or reference the specified requirements, including *quality* requirements, for purchased or otherwise received product and services. Purchasing documents *shall* include, where possible, an agreement in which the suppliers, contractors, and consultants agree to notify the *NADO* of changes in the product or service so the *NADO* can determine whether the changes *may* affect *quality*.

With amendments

NT-L1.300 PURCHASING CONTROLS

For contracted services involving *donor* screening, *donor* eligibility, *acquisition*, *preparation*, *storage*, and/or *distribution*, refer to NT-B1.500 for additional requirements. Also refer to specific

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	Bulletin 19-1	

information at NT-B1.600 for contracted and non-contracted laboratory services for infectious disease testing.

Each *NADO shall establish and maintain procedures* to ensure that purchased or otherwise received **critical** products and services, including testing services, conform to specified requirements, if any. Each *NADO shall establish and maintain the requirements, including quality requirements that must be met by critical suppliers, contractors, and consultants. Each NADO shall:*

- 1) evaluate and select potential **critical** suppliers, contractors, and consultants on the basis of their ability to meet specified requirements, including quality requirements. The evaluation *shall* be documented.
- 2) define the type and extent of control to be exercised over the product, services, suppliers, contractors, and consultants, based on the evaluation results.
- 3) *establish and maintain records of acceptable critical suppliers, contractors, and consultants* Each *NADO shall establish and maintain data that clearly describe or reference the specified requirements, including quality requirements, for purchased or otherwise received product and services. Purchasing documents shall include, where possible, an agreement in which the suppliers, contractors, and consultants agree to notify the NADO of changes in the product or service so the NADO can determine whether the changes may affect quality.*

As amended

NT-L1.300 PURCHASING CONTROLS

For contracted services involving *donor screening, donor eligibility, acquisition, preparation, storage, and/or distribution*, refer to NT-B1.500 for additional requirements. Also refer to specific information at NT-B1.600 for contracted and non-contracted laboratory services for infectious disease testing.

Each *NADO shall establish and maintain procedures* to ensure that purchased or otherwise received critical products and services, including testing services, conform to specified requirements, if any. Each *NADO shall establish and maintain the requirements, including quality requirements that must be met by critical suppliers, contractors, and consultants. Each NADO shall:*

- 1) evaluate and select potential critical suppliers, contractors, and consultants on the basis of their ability to meet specified requirements, including quality requirements. The evaluation *shall* be documented.
- 2) define the type and extent of control to be exercised over the product, services, suppliers, contractors, and consultants, based on the evaluation results.
- 3) *establish and maintain records of acceptable critical suppliers, contractors, and consultants* Each *NADO shall establish and maintain data that clearly describe or reference the specified requirements, including quality requirements, for purchased or otherwise received product and services. Purchasing documents shall include, where*

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	<i>Bulletin 19-1</i>	

possible, an agreement in which the suppliers, contractors, and consultants agree to notify the *NADO* of changes in the product or service so the *NADO* can determine whether the changes *may* affect *quality*.

Announcement Date: January 31, 2019 (Bulletin 19-1)

Effective Date: July 31, 2019 (6-month implementation period)

NT-L1.310 CONTRACTED TESTING SERVICES

An evaluation of testing services *shall* be documented for those contracted testing services performed remotely (e.g. contracted laboratory) and those performed on-site at the *NADO*, as applicable.

NT-L1.311 TYPES OF TESTING SERVICES

Examples of contracted testing services *may* include, but are not limited to, the following:

- 1) donor infectious disease testing (also see NT-B1.600);
- 2) *environmental monitoring*;
- 3) calibration services (e.g. temperature monitoring devices, equipment); and
- 4) ventilation/airflow testing certification.

NT-L1.312 EVALUATION OF TESTING SERVICES

Each *NADO* utilizing outside testing services *shall* ensure testing is adequate for the intended use of the test results. This evaluation *may* include, but is not limited to, the following:

- 1) FDA registration, if required;
- 2) applicable state licenses, certifications and accreditations;
- 3) maintenance of an adequate *quality assurance program* to ensure the validity of results (e.g., test sample integrity, *quality control* samples, personnel *competency*, equipment maintenance, materials management);
- 4) participation in a laboratory *proficiency testing* program, if available;

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	Bulletin 19-1	

- 5) adherence to relevant standards (e.g., CAP, ISO, ASTM, AAMI, USP);
- 6) follow manufacturers' instructions (e.g., package inserts, equipment manuals, electrical, and/or environmental conditions);
- 7) appropriate test method selection and *validation/qualification*;
- 8) use of traceable reference materials and calibration standards, where applicable; and
- 9) results from a paper, virtual, or on-site *audit*.

NT-L2.000 QUALITY CONTROL PROGRAM

The *QA program shall establish and maintain QC procedures* for equipment maintenance and monitoring.

NT-L2.100 ANNUAL CALIBRATIONS

Each *NADO shall ensure at least annual calibration of mechanical devices used for storage with a NIST traceable thermometer. The overall QA program shall include maintenance of calibration records.*

NT-L3.000 INVESTIGATIONS

The *QA Program shall ensure for the completion of any investigation and perform a review for completeness of accidents, errors, complaints, deviations, and NAM returned from any of the preceding conditions. Investigation shall include a summary report, precipitating events, recommendations, and resolutions. The QA program shall retain for 10 years all reports generated.*

NT-L3.100 ERRORS AND ACCIDENTS

The *QA program shall ensure a documented investigation of any errors or accidents in obtaining authorization, in donor screening, acquisition, or NAM preparation, quarantining, releasing, labeling, storage, distribution, final disposition. When NAM may have been contaminated, the QA program shall ensure the documented review and evaluation both of preparation procedures and of any other NAM processed simultaneously or from the same donor. If the error or accident may affect the safety of NAM to be released or that has been released, the Medical Director, licensed physician designee, or responsible person shall also review and evaluate the incident.*

NT-L3.200 COMPLAINTS

The *QA program shall ensure that all written and oral complaints regarding NAM quality, safety, packaging, or utility, are expeditiously investigated to determine whether the complaint is related*

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	<i>Bulletin 19-1</i>	

to an *error, accident, adverse outcome*, or other factor, unless such investigation has already been performed for a similar complaint. If it is determined that no investigation is necessary, a *responsible person shall* document the reason that no investigation was made and the name of the individual responsible for the decision not to investigate. Each investigation *shall* determine whether associated *NAM* may be affected. If it is determined that they may be affected, *then* the associated *NAM shall* be located and *quarantined* until *resolution* of the incident (which *may* involve initiation of a *recall* or returning the *NAM*). The Medical Director, licensed physician designee or *responsible person shall* review *complaints* that are of a medical nature. When an investigation is made, a *record* of the investigation *shall* include:

- 1) the date the *complaint* was received;
- 2) the name of the *NAM*;
- 3) the *unique identifier*;
- 4) contact information of the complainant;
- 5) the nature and details of the *complaint*;
- 6) the dates and results of the investigation;
- 7) any *corrective action* taken; and
- 8) any reply to the complainant if provided.

NT-L3.300 ADVERSE OUTCOMES

The *QA program shall* ensure that all reported *adverse outcomes* that are potentially related, directly or indirectly, to *NAM* are investigated thoroughly and expeditiously. The Medical Director or licensed physician designee *shall* review all potential *adverse outcome* reports and participate in determination of the impact and *resolution* of any *adverse outcome*. If investigation indicates that the *adverse outcome* is related to an *error* or *accident*, then the *NADO shall* follow *procedures* for *errors* and *accidents* (see NT-K1.200).

NT-L3.310 REPORTING

The *QA program shall* ensure that all cases of transmissible disease in an educator or researcher attributed to the *NAM* are reported in writing as required by public health authorities, and in a timely fashion to organizations and *NADO's* involved in any manner with *NAM recovered* from the same *donor* and to the educator or researcher(s) involved in the use of *NAM* from that *donor*. Reporting *shall* be documented in the *donor's record*.

See the Accreditation Policies (APPENDIX II) for other required reporting.

NT-L4.000 INTERNAL AUDITS

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	Bulletin 19-1	

All *NADOs* shall establish policies and *procedures* regarding the scope and frequency of routine and focused *QA audits*. The *QA program* staff shall perform *audits*, at least *annually*, of the major *NADO* operational systems to identify trends or recurring problems in: *donor* evaluation and acceptance, *acquisition*, *quarantine*, *preparation*, *packaging*, *donor* and *NAM* testing, *labeling*, *storage*, *release*, *distribution*, *final disposition*, *electronic systems*, and *records* management. The *QA program* shall perform focused *audits* of *critical areas* (unless the *annual* routine *audit* covers all *critical areas*), and of any area with a pattern of *quality* problems. All *audits* shall be performed by persons who do not have direct responsibility for the process being *audited*. The *NADO* shall take *corrective action(s)* when necessary, including a re-*audit* of deficiencies. The *QA program* staff shall document and report the dates and results of each *quality audit* (and re-*audit*) to management responsible for the *audited* systems, who shall review each report.

NT-L4.100 EXTERNAL AUDITS

External *audits* may be indicated for certain services, suppliers, contractors, and consultants (NT-L1.300 and NT-B1.520).

NT-L5.000 ELECTRONIC SYSTEM CONTROLS

NT-L5.100 AUTHORIZED ACCESS

Each *NADO* shall exercise appropriate controls over *electronic systems* to limit general access to authorized personnel and to permit only *authorized personnel* to alter production and control *records* or other *records*.

NT-L5.200 ERROR REDUCTION

When automated data processing is used for decision-making, adequate *procedures* shall be designed and implemented to prevent inaccurate input or output of data and programming *errors*.

NT-L5.300 BACKUP FILES

A backup file shall be maintained of all data that are entered into an *electronic system* and subsequently used for decision-making purposes and of all data that are not otherwise *recorded* and accessible.

NT-L5.400 SECURITY

Electronic systems shall be designed and *validated* to assure data integrity and maintained in a secure manner to prevent alteration or, loss.

NT-L5.500 AUDIT TRAIL

Version	Approval Dates	Announcement Date	Effective
	<i>Standards Committee:</i> 11-30-18	31 Jan 2019	7-31-19
	<i>Board of Governors:</i> 12-11-18	<i>Bulletin 19-1</i>	

Records revised electronically *must* have an *audit trail* that includes the altered information, date of the revision, and the individual that made the revision.