The weights listed below are to be used

Weight	Description
1	Functionality or feature described in the requirement is a "wish list" item
2	Functionality or feature described in the requirement is not critical to operations, but should be required by most Labs
3	Functionality or feature described in the requirement is required by most labs to perform optimally
4	Functionality or feature described in the requirement is critical to most labs daily operations

Vendor Weights	Description
1	Functionality current in General release and working in many clients in Production
2	Functionality currently in beta testing and will be released in next general release code version
3	Functionality on enhancement list and will be developed in future releases
4	No plans to develop this functionality

Glossary	
HIS	Hospital Information System: This can also be an EMR depending on the stage of your institution
CAP Survey	College of American Pathologist. A regulatory agency for the Lab industry
HL7	Health Level 7 is an interface protocol that outlines standards for transfering data between healthcare systems
HIPAA	Health Insurance Portability and Accountability Act
FDA	Federal Drug Administration
AABB	American Association of Blood Banks
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
CPT	Current Procedural Terminology
ICD9 / ICD10	International Classification of Diseases
ISBT 128 Barcode	International Society Blood Transfusion
CLIA 88 regulations	Clinical Laboratory Improvement Amendments
FCS Standards	Flow Cytometry standards
SNOMED Codes	Systemized Nomenclature of Medicine
LOINC codes	Logical Observation Identifiers Names and Codes
CLSI	Clinical and Laboratory Standards Institute

Core (System Wide)			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
ADT & Registration			
Provides stand-alone registration capabilities, including downtime and client registrations.	4		
Allows unlimited number of patient registrations.	4		
Performs duplicate checks to prevent assignment of duplicate medical records at registration.	4		
Accepts medical record number assignment by an admissions/registration system.	4		
Supports quick registration feature.	3		
Ability to track multiple patient encounters.	4		
Allows patient to be pre-admitted for an unlimited number of days in advance.	3		
Allows for registration of non-patients such as environmental studies or CAP surveys.	3		
Provide ability to customize Registration Conversations based on patient type/service. (ie: Outpatient, research study participant, or labor & delivery/newborn)	3		
Allows for automatic discharge of selected patient types as defined in the database by the	3		
Auditing			
The system must collect an audit trail of all transactions (including corrections) and be able to create a report or audit trail of exceptional events.	4		
Provides audit trail of canceled tests.	4		
Provide a sortable audit trail of scheduled system functions.	4		
Billing			
Multi-tier pricing for lab tests/ procedures is based on patient type and/or patient location.	4		
Ability to automatically drop a phlebotomy charge for each phlebotomy performed with duplicate checking set for lab-defined time period and test.	4		
Support patient and client billing from LIS.	3		
Support multiple client fee schedules.	3		
Ability to use charge numbers based on the facility where patient is located.	3		
Support duplicate checking of venipuncture charges.	4		
Clinician Record			
Provide a physician database to store information such as mailing address, phone, fax number and medical service.	3		
Ability to create a group practice and include all physicians within that group.	3		
Physician inquiry for address, phone, and fax.	3		
Ability to pull a custom report based on physician.	3		
Ability to perform competencies online and be able to track and update procedures.	2		
Collections/Specimen Procurement			
Routes specimen processing based on ordering location, time of day, day of week,	4		
Communication			
Ability to broadcast a message to all users real time on the screen.	3		
Provide internal messaging/communication process that supports individual and distribution groups for communication with indefinite storage.	3		

Core (System Wide)			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
System administrator must be able to inquire on all emails/messages sent/received by all	3		
Data Conversion			
Ability to import lab-defined historical information from legacy LIS into new LIS.	4		
Database Maintenance			
Provide integrated data maintenance whereby update to a data element in the Data Dictionary updates all modules using that data element and re-organization with step-by-step performed manuals.	3		
Support data dictionary elements with at least 15 characters or greater such as procedure name, results, units of measure, reference ranges and blood bank products.	4		
Ability to provide an abbreviated data element name along with its long name.	4		
Maintains and updates diagnostic directories including diagnostic normal range directory, quality control acceptable values and standard results directory.	4		
Creates and maintains control directories and authorization tables that indicate which employees and/or terminals can enter or modify orders, enter, modify and verify results, print labels, revise CAP standards, have specimen collection responsibility and revise prep instructions.	4		
Supports multiple institutions that have multiple entities and/or associations that separates security, system access, reporting, and blood bank inventory.	3		
Ability to customize the display based on user preferences with the ability to go back to default settings.	3		
Ability for System Admin to control which preferences a user or a user group can change.	2		
Ability for all security levels to have a view only of tests mapping to/from HIS, LIS and Reference Lab. Search should be able to be performed by entering any test code (HIS, LIS or reference lab) or test name (including soundex).	2		
Users able to retrieve collection and handling data for each test built within the database. System security allows for an “inquiry only” function to review this data.	2		
Ability to column sort and print view of test mapping	2		
Ability to search and display which test is included in any panel or profile tests. The search should be by test name (soundex) or test code. The search should then display any additional components of any panel.	3		
Allow reporting of numerical results to lab-defined number of significant digits per test.	4		
Foreign System Interfaces			
Supports HL7 ADT transactions.	4		
Vendor shall supply a list of interfaces supported for lab instruments, POC, HIS, reference lab, and financial systems.	4		
Interfaces to outside labs for reporting purposes.	4		
Provide real-time online interface (HIS and instrument) input display that shows the following transactions and any associate error with the transaction and store these transactions online for up to 7 days before being overwritten for ADT's, orders, cancellations and results.	4		

Core (System Wide)			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Provide real-time online HIS interface display of the HL7 messages received and sent to the FSI and store these transactions online for up to 7 days before being overwritten.	4		
Compliance with the latest published HL-7 standards.	4		
Support manually retransmitting data to HIS when required.	4		
Instruments & Handheld Devices			
Store and maintain calibration records for interfaced instruments.	3		
Supports instrument maintenance lists online by instrument and shows expected maintenance to be performed for the next week.	3		
Creates and updates instrument maintenance profiles.	3		
Reports post maintenance activity by instrument, date performed, and person performing	3		
Ability to be able to schedule maintenance activity reminders	3		
Inventory			
Store inventory supply of reagents, QC, etc. and generate reports.	3		
Supports inventory control by departments/ sections.	3		
Labels & Barcodes			
Provide intelligent sample labeling – groups samples in chemistry together and prints on labels, while hematology tests print on separate label and microbiology prints separately.	4		
Ability to run the same barcoded specimen from either lab facilities that uses the LIS so the barcode specimen recognizes which facility the order came from and results the tests.	4		
Ability to view multiple special handling instructions / comments entered for test processing detail on a label.(protect from light, put on ice, spin and freeze).	4		
Notifications & Warnings			
Warns the user that further testing is necessary based on lab-defined criteria.	3		
Warns the user that further testing is necessary based on lab-defined criteria and the system automatically reflexes the order.	3		
Provides automatic warnings if lab-defined result thresholds are exceeded when resulting.	3		
Orders			
Support Complex Reflex Testing (CRT) allows the automatic ordering of additional tests based on results from previous tests.	4		
Automatically orders additional tests to be done while original specimens are still available.	3		
Updates inventory when blood orders or other expendable items are ordered.	3		
Allows single or multiple test cancellations for each patient.	2		
Prints/displays test requests by workstation or sub-department.	3		
Ability to force a test to a separate accession number based on lab-defined parameters.	3		

Core (System Wide)			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Ability to correct a field on a screen without having to re-enter entire order transaction.	3		
Allow the user to accept, reject, or re-run a test.	3		
Ability for Test inquiry or Procedure data base to only display Active and Orderable test procedures.	3		
Ability for any order comments entered into HIS to display in LIS on a result entry screen in a manner that requires the testing staff to receive screen notification (other than display) that a comment is present.	3		
Allow a miscellaneous test code so previously undefined tests can be ordered and charged.	3		
Patient Record			
Support storing and entering patient allergies as well as receiving allergies from a foreign system.	3		
Ability for the system to update the medical record for all encounters when a combine message is sent from the HIS keeping encounters separate and to provide an audit trail.	3		
Ability for the system to automatically link patients records across institutions that have	2		
Ability to un-merge a previously merged/linked patient encounter.	3		
Regulations & Standards			
Meets or exceeds regulatory agencies requirements for HIPAA, CAP, FDA, AABB and JCAHO.	3		
Reports			
Supports results printing as ordered such as profile and individual.	3		
Generates split cumulative reporting.	3		
Allow microbiologists to view and/or print a copy of results as they appeared after each release.	2		
Ability to generate a daily lab report for all phlebotomies including lab and non lab personnel	3		
Ability to print or suppress reports based on physician groups, service etc.	3		
Results			
Automatically sends a real-time interface message when results are verified.	3		
Captures the ordering location for returning results.	3		
Allows entry of STAT results.	3		
Result reporting can be suppressed by location, test code and status.	3		
Provide normal ranges by age at time of the result.	3		
Suppresses results that should not be broadcasted to remote printers or interfaces.	3		
Supports entry of comments, as well as test results.	3		
Must have ability to flag results based on criteria other than standard reference ranges to include testing location, drawing location, ordering provider, patient age, and priority of order.	3		
Provide the ability for any user to view the reference range and units of measure for any test in the data base either by test code or test name including soundex.	3		
Ability to select between reportable and non-reportable comments.	3		

Core (System Wide)			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Electronically document supervisor's review of critical values.	3		
Selected results create an expedite report automatically when verified.	3		
Result Inquiry & Viewing			
Ability to specify date range, number of results, current encounter, test specific, or to display all results and tests in a patient inquiry.	3		
Allow the user to graph online patient results by test to identify possible trends.	2		
Allow historical results for multiple tests to be graphed on one normalized graph.	1		
Rules & Processing			
Supports rules based test routing to specific instruments or reference labs based on time of day, day of week, priority and patient location.	3		
Utilizes expert algorithms.	3		
Ability to automate system functions and require that they be performed at lab-defined timeframes such as timed and routine collections labels, reports / faxing, billing files and automated back-ups.	3		
Provide medical necessity validation based on lab-defined valid diagnosis codes for each applicable test.	3		
Provide ability to override specified destination for laboratory testing.	3		
Ability to direct tests to an instrument or bench queue allowing tests to be "transferred" to another queue by deptartment or batch when an area is unavailable.	3		
Ability to duplicate check across priorities with lab-defined rules of action such as change the priority of the larger group test if the smaller group test has a higher priority. Example: Stat HCT to routine CBC should change the priority of the CBC to STAT and cancel the HCT.	3		
Ability to suppress reflex test printing a collection label when ordered as an add on to an earlier specimen.	3		
Ability to determine certain result flags that will be transmitted to the HIS in which defined result flags (i.e., D-Delta, N-Exceeds linearity, R-Review) should not replace a Critical, High or Low flag.	3		
Support			
Provide toll free "Knowledgeable Help Desk" 365 days/year, 24 hours/day.	3		
System Downtime			
Planned and unplanned downtime capabilities such as a report of all test performed the previous day by performing department.	2		
Support the ability to back enter the performing date/time and technologist ID on each result for recording downtime recovery.	3		
User Interface			
Provide menu, command and graphical user interfaces.	3		
Provide support for keyboard data entry.	3		
Provide support for use of a mouse.	3		
Provide support for the use of a touch screen.	2		
Provide support for use of wireless palmtop devices.	2		
Provide support for use of an automated telephone system.	2		

Core (System Wide)			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Provide support for use of a voice recognition system for transcription.	2		
Provide support for embedded voice navigation.	2		
Provide support for optical character recognition (OCR) system	2		
Provide support for use of Barcode scanners	3		
Provide support for voice result entry, i.e., ability to work with voice recognition software.	2		
Provide ability to change screen font size and colors.	3		
Provide ability to print screen from any LIS screen.	3		
Provide ability to branch to another computer function and return to the starting point.	3		
Ability to access a function independent of current function being used.	3		
Provide data repository for online access of SOP's and like materials.	2		
Provide on-line help screens to assist users.	3		
Worklist & Worksheets			
Utilizes work lists to receive diagnostic interpretation.	3		

Specimen Processing / Send Outs			
Requirement Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Accession Numbers			
The LIS shall assign a unique accession number.	4		
The accession number shall be lab-defined to identify facility, entity and department	4		
Support alpha/numeric accession numbers.	4		
Auditing			
Ability to provide an audit trail of specimen rejection process and recollection data.	3		
Billing			
Automatically capture phlebotomy charges.	4		
Collections/Specimen Procurement			
The system shall support bedside specimen collections via manual entry and instrument interface.	3		
Printed collections lists shall be printed on 8.5 x 11 inch paper which can be sorted by patient, facility, location, ordered tests and requested collection times, special collection requirements.	3		
The ability to use hand held devices shall be provided to match barcode patient labels with patient data printed on collection list.	3		
Ability to print labels immediately or to send the order to a collection batch based upon priority ROUTINE, STAT, ASAP, TIMED, FUTURE STATS and other lab-defined priorities.	4		
The system shall allow for auto rescheduling on any missed collections based on user-defined rules.	3		
The system shall print minimum volume on collection labels.	4		
Ability for specimens to be scanned by barcode upon receipt with ability to modify date and time of collection at any time.	3		
Ability to track specimen from collection through transport, testing, storage, retrieval and final disposal.	3		
Ability to view online to identify specimen location or ability to view specimen location through discard.	3		
Provide list of specimens ready for discard (Banking System).	2		
Provide specimen rejection capability with auto reorder, label regeneration and cancel/credi capabilities.	3		
Ability to assign a specimen status as received both lab collected and non-lab collected specimens with the ability to modify collection date/time and ID of phlebotomist/nurse.	4		
System shall support the auto loading of specimens into a robotic system.	3		
Ability for verified as collected labs to populate a work pending list with auto refresh by on line view or printable worksheet	3		
Barcoding at time of collection will collect all pertinent collection data such as date/time, Phlebotomist/Nurse ID and collection source/site.	4		

Specimen Processing / Send Outs			
Requirement Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Support specimen transfer to auto log-in for the hospital lab where testing is to be performed.	3		
Provide a system that allows for the flexible build of a collection system and allows multiple tests to be collected in one or more user defined tubes/containers.	4		
Provide ability to uncollect a blood specimen and alert phlebotomist for recollect.	3		
Recollected specimens should go to a queue to track specific recollect data. This may trigger an automated data form for the user to complete. The user should be able to pull a report based on the data form, e.g., collection container, phlebotomist initials, and date.	4		
Provide ability to change/correct an entered collection date or time after it has been entered with an audit.	3		
The ability to record recollect specimen time and phlebotomist ID without losing tracking information of original collector and time. Sequential recollects if indicated should also retain time and phlebotomist ID including staff ID entering specimen as Uncollected.	4		
Provide that uncollected specimens continue to appear on subsequent lists until cancelled or collected.	4		
Ability to specify age specific collection requirements such as volume and type of tube.	4		
Provide specimen tracking capabilities.	4		
Remove unsuitable or lost specimens from collection list and activate recollection.	4		
Import reference lab file containing specimen collection catalog to help with collections.	4		
Mechanism for shared specimens across multiple laboratories or departments within a single hospital.	4		
Foreign System Interfaces			
Results received from a reference laboratory interface with a final flag are automatically completed in the LIS.	4		
Instruments & Handheld Devices			
Allow for handheld device collection information (date, time, initials) to be uploaded upon receipt.	3		
Specimen accession number shall be sent with tests to a download interface by instrument or bench.	3		
Specimen accession number shall be sent with tests to a host-query and scripted (or other) interface by instrument or bench.	3		
Differentiate sample type and volume based on in-house and reference lab requirements.	3		
Labels			
Barcode collection and accession labels shall contain DOB, age, and blank line.	3		

Specimen Processing / Send Outs			
Requirement Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Barcode collection and accession labels shall contain Patient Name, MRN, Patient Location (Floor, Room & Bed), test name, collection requirements, collection container, collection date/time, test priority, collection priority and encounter number	4		
Ability to print barcode collection and accession labels on multiple industry accepted barcode printers	4		
Accession and Collection labels shall provide for the capability of bolding and changing font based on lab-defined preferences.	3		
System shall provide "cut out" collection and accession labels for microtainers and smaller tubes to contain medical record number and DOB, Patient Name, Accession Number, ability to add or remove barcode.	3		
Flexibility shall be supported to direct label printing to default and alternate printers/locations based upon test priority	4		
Flexibility shall be supported to direct label printing to default and alternate printers/locations based upon test code.	3		
Flexibility shall be supported to direct label printing to default and alternate printers/locations based upon order priority.	2		
Ability to reprint collection and accession labels individually and in batch.	4		
Provide ability to auto print aliquot labels including those for specimens to be tested at affiliated clinics or alternate testing sites.	4		
Ability to print special handling instructions from collection requirements (such as frozen, do not refrigerate, protect from light, etc.) on the label.	4		
Ability to read foreign barcodes that LIS generates for other systems without re-labeling on in-house instrumentation.	3		
Labels can be standardized and used for all facilities or customized for each facility.	3		
Create and print lab-defined reference lab requisitions.	3		
Customizable bar codes to fit different specimens or instruments.	4		
Orders			
Ability to place and accept orders from the nursing units.	4		
Ability to place and accept orders from within the laboratory, community based providers and other Outpatient remote locations.	3		
Ability to enter lab orders for all types of patients including pre-admits and other future dates such as near term OB patients and recurring patient types.	4		
Ability to "unbundle" ordered tests by CPT code as required for Medicare compliance.	3		
Provide flexibility in test code descriptions complete with cross references to generic terminology.	3		
Display specimen rejection status in Order Inquiry.	4		
Ability to handle orders from multiple physicians with multiple diagnoses with a single registration with specific physician charting of results.	4		
Ability to have multiple CPT codes assigned to a test code.	3		
Ability to look-up a test by full name, partial name or synonym.	3		
Provide add on test functionality.	3		

Specimen Processing / Send Outs			
Requirement Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Ability to prevent add on tests to inappropriate specimens.	4		
Future orders are held in system and labels print on day collection is due.	4		
Order Entry & Format			
Provide capability of entering and storing ordering comments.	4		
Provide ability to designate required and optional fields at order entry.	4		
Provide duplicate/conflict checking by test code and priority at order entry for a lab-defined time period, test to test, test to profile, and profile to profile.	4		
Provide capability of requiring certain test code specific information "prompt/prompt response" be provided at order entry, such as Coumadin dosage for coagulation testing.	4		
Provide ability for lab-defined caregivers to display on the order screen such as order physician, primary care physician, and consulting physician.	4		
Provide ability to build any special instructions or unique information into the test code file so that information will be available at order entry and print on labels.	4		
Provide ability to generate requisitions and/or labels at order entry.	4		
Multiple tests can be placed in a single order conversation for a patient.	4		
Orders can be sent via an interface to the LIS or selected from the LIS via a test code, or by selecting from a test menu.	4		
Patient Record			
Provide ability to create a cross encounter chart. e.g. patient has outpatient and inpatient visits.	4		
Provide ability to have an active outpatient recurring account in conjunction with an active inpatient encounter.	3		
Ability to pull forward stored registration demographic patient data and to change to the current ordering physician without having to complete a totally new registration.	4		
Ability for the LIS to store the reference lab accession number as part of the patient result file.	4		
Regulations & Standards			
Ability to satisfy all HCFA requirements related to medical necessity for ordered tests.	4		
Support compliance regulations with CPT and ICD-9 / ICD-10 code correlation and printing of Advanced Beneficiary Notices (ABNs).	4		
Reports			
Ability to print the minimum volume list on demand.	4		
Ability to produce a daily shift report on collection statistics by phlebotomist.	4		
Generate reports for lab-rejected specimens.	4		
Results			
Order comments shall display in result entry functions.	4		
Provide ability to document phoned results from reference lab.	4		
Provide ability to document receipt of final results.	4		
Provide ability to document phoned results to caregiver.	4		

Specimen Processing / Send Outs			
Requirement Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Rules & Processing			
Ability to evaluate age specific minimum volume based on the ordered test or the combination of tests and to collection labels accordingly.	3		
Ability to allow for user-defined minimum volume requirements on collections, based on lab-defined rule logic on single and combination tests.	3		
Provide means of directing orders and specimens to the appropriate location if multi-entity processing is utilized based on test ordered, time of day, day of week, priority, and patient location.	3		
Provide a system that must allow for a 1-4 minute delay in producing accession numbers/labels for stat/ASAP orders to accommodate a time difference in HIS to LIS when receiving orders from the HIS.	3		
Send outs			
Provide lab-defined send out worklist.	3		
Provide ability to incorporate relevant send out test requirements into the test code file.	3		
Provide lab-defined send out specimen labels.	3		
Provide send out status in patient order inquiry.	3		
Provide a method such as a back up feature for the packing list (which generates the interface message to the reference lab) allowing it to be recalled if an error is encountered.	4		
Ability to view/print date/time packing list was created (via interface message) for up to 7 days.	4		
Provide packing list designations that are service location and temperature specific.	4		
Ability to generate a packing list with a barcoded accession number specimens sent to reference laboratories.	4		
Ability to resend the packing list electronically across the interface to the reference lab.	4		
Ability to regenerate a packing list up to 24 hours.	4		

General Laboratory			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Accession Numbers			
Provide system assigned accession numbers that distinguish institutions and facilities.	4		
ADT & Registration			
Name field length of at least 60 characters	4		
Ability to edit patient's name and DOB	4		
Provide ability to handle merging/unmerging of LIS patient data.	4		
Auditing			
Provides extensive audit trail down to the individual test level.	1		
Autoverification			
Autoverification prevents posting of results for critical values, exceeding review limits, and error messages from instruments ~~and~~ as well as by multiple specific tests or test groups without autoverification limits.	4		
Autoverification capabilities based on critical levels, delta checks from previous patient results and/or review limits set on each analyte.	4		
Billing			
Provides ability to override automatic charge generation.	4		
Supports charges based on the completed test or at a lab-defined status point at the test level.	4		
Provide the ability to send billing information for reflexed tests to HIS systems and other third-party applications.	4		
Ability to drop a charge based on tests performed or not performed in a procedure.	4		
Provider Records			
Provide the ability to flag a doctor record as Active or In-active	4		
Provide the ability to enter more than one address per provider	4		
Define provider roles and authorization levels	4		
Display full provider name and address from look up while requisitioning orders	4		
Provide the ability to filter for doctors who are currently active while performing a doctor inquiry.	4		
Collections/Specimen Procurement			
Ability to transfer entire accessions or individual tests to a different lab site.	4		
Ability to run specimens on either one of duplicate instruments. The LIS will capture the ID of the instrument performing the result~~.~~	4		
Ability to make corrections by specimen number or test.	4		
Identifies the number of specimens to be drawn and the volume of each specimen.	4		
Supports on-line display of collection lists for on-line updating of collection status (collected, not collected, and reasons).	4		

General Laboratory			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Ability to integrate a handheld bedside positive patient ID, access to collection list at the bedside, and bedside label printing	4		
Supports multi-site specimen tracking and transfer.	4		
Data Conversion			
Supports data upload of historical results and the ability to edit those results. This includes Pathology, Genetics, Blood Bank, The edits would have to leave the interface.	3		
Database Maintenance			
Provide ability to share a test code file across facilities.	4		
Ability to in-activate test codes that are no longer used but are retained for historical and auditing purposes.	4		
Creates different resources for dictionary edits with the ability to enter resource comments.	2		
Ability to define reference limits by gender and age (hours, days, months and years)	4		
Ability to set reference ranges by department, clinic, or outreach client	2		
When inactivating a procedure (test), the system should list all of the places where the procedure is used (for example, included as part of a profile, on a QC worksheet) and ask if the system should inactivate it there also.	3		
Ability to flag all results in all modules with an abnormal and critical flag.	4		
Flag lab test as well as organisms for Infection Control review.	4		
Provide the ability to support multi-facility tracking, testing and reporting.	4		
Ability to provide a link to online documentation for individual tests such as a test dictionary or procedures. Test compendium should include reference ranges, specimen collection protocols, and testing location.	4		
Supports alpha and numeric test codes within the database.	4		
Reference ranges, critical values, number format, delta checks can be standardized or customized for each facility and the work centers within a facility.	4		
Functionality for synonyms. The same synonym can be used in multiple records.	2		
Supports reference ranges for non-numeric tests.	4		
Foreign System Interfaces			
The ability to accept error corrections from the reference lab and then send to the HIS.	4		
Provide the ability to receive and to send date, time, and dosage of medications for lab-defined drugs to and from the HIS systems.	4		
Support chartable patient test comments that can be sent to HIS systems and non-chartable (internal) patient comments.	4		
Ability to receive and store digital images from reference laboratory interface.	4		

General Laboratory			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Labels & Barcodes			
Ability to view, print a report, and print labels for orders that can be sorted by date/time, priority, patient, location, physician, test, accession number and encounter.	4		
Provide collection label production capable of being read by instruments which contains the following information patient name, age, gender, barcoded accession number and test to be performed.	4		
Ability to scan barcode into system entering all patient order and collection information automatically.	4		
Provide barcoded positive patient identification bedside label production that can then be uploaded into the system. Automatically update the status of specimens with the collection date/time and Phlebotomist ID.	4		
Notifications & Warnings			
Provide a lab-defined special alert/notification for corrected results on results inquiry online and on printed reports.	4		
Ability to provide rule based flagging of critical results with color coded messages requiring user response to clear the alert.			
Orders			
Captures and stores the following order and collection data by date and time of order, date and time to be collected, actual date and time of collection, Phlebotomist ID, cancellation date and time, cancellation reason, date/time/Tech ID for results, correction date/time/Tech ID and all serial changes have all IDs displayed without overwriting information.	4		
Ability to see cancelled orders cancelled by the HIS.	4		
Ability to view orders by user-defined dates on order accessioning and results inquiry.	4		
Ability for users to cancel recurring and one-time orders and send across to HIS.	4		
Allow entry of multiple diagnosis codes for each ordered test	4		
Ability to combine specimen numbers	3		
Provide ability for pending inquiry dashboards to auto-refresh without the need to exit and re-enter.	3		
Pending inquiry dashboards display in priority order.	3		
Supports changing or canceling any test request before or after specimen collection.	2		
Ability to display on Turn-Around-Time tracking board with the ability to create profiles to include certain tests, departments, etc.	3		
Processes STAT priorities without delay (non-batch processing).	4		
The ability to view pending tests from multiple departments simultaneously.	3		

General Laboratory			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Provide order inquiry sort ability to see resulted tests listed before charge only, e.g., venipuncture fees.	3		
Ability to track time dependent tests.	4		
System allows for tolerance test which ~~is~~ contains multiple accessions, multiple timed collections, and interface transmission of results occurring after each test has been resulted.	3		
Multiple tests can be placed in a single order conversation for a patient.	3		
Test names and panels can be standardized across organization or customized as needed.	4		
Procedure Order catalog can be shared globally or separate order catalog for each organization or facility.	3		
Ability to process multiple analyzers from one screen at the same time.	3		
Ability to add cancel comments to cancelled tests and print QA reports with cancelled tests and reason for cancellation.	4		
System should allow a range of accession numbers or patient names to be redirected or transferred to the 'back up' testing area with a minimum of key strokes.	3		
Order Entry			
Collected order entry information includes patient information, test and type of order	4		
Collected order entry information includes ordered by information	3		
Provide for intelligent prompting for accessioning (when a wound culture is ordered or the system prompts the user for site/location).	3		
Be able to customize ordering screen to include questions and to be able to receive and store answers from the foreign (non-lab) ordering system.	3		
Provide pre-coded and free text comments at time of order entry.	3		
Patient Inquiry			
Supports inquiries of patients by patient MRN, encounter number and patient name	4		
Supports inquiries of patients by Doctor's name, nursing units/locations, soundex and DOB.	3		
Patient Record			
Provide access to patient demographics from Result Entry, Result Inquiry, and Order Entry screens that include information such as patient name, encounter, DOB, Medical Record Number, age, sex and accession number.	4		
Provide access to patient demographics from Result Entry, Result Inquiry and Order Entry screens that include information such as Room/Location/Bed	2		
Provide access to patient demographics from Result Entry, Result Inquiry and Order Entry screens that include information such as Admitting and Ordering Physicians	3		

General Laboratory			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Provide customizable patient demographic "banner" at the top of each screen that provides key patient identifiers that include but are not limited to accession number	4		
Provide customizable patient demographic "banner" at the top of each screen that provides key patient identifiers that include but are not limited to patient name, DOB, age, Medical Record Number, encounter number, service/specialty and location.	3		
Ability to carry forward patient registration data in subsequent visits that can be modified upon verification of information with patient.	4		
Provide patient account inquiry that includes lab charges.	4		
Captures and permanently stores patient and test record information such as specimen collection time, Phlebotomist, Technologist of record, HIS log to ID location to include all patient types	4		
Provide ability to record infant age in months, days, and hours up to one year of age.	4		
Regulations & Standards			
Compliant with CAP and JCAHO, FDA, FACT, AABB, HIPAA	4		
Management Reports			
Ability to print historical results based on lab-defined filters such as date, encounter, test, physician and service.	4		
Generates a daily list of all outstanding tests.	4		
Generates a daily list of all requested tests.	4		
Generates a daily list of all overdue tests based on lab-defined turn-around time.	4		
Capable of exploding out formatted templates for result entry such as Synoptic reporting.	4		
Generates statistics, including CAP workload statistics, for any period by test, requesting area and Physician.	4		
Generates statistics, including CAP workload statistics, for any period by method.	3		
Support workload statistics based on methodology of test procedures and not on the test code.	3		
Supports Automatic state health department reporting (Each state will have different requirements)	4		
Results			
Provide lab-defined delta checks at result entry. Delta checks must be numeric and percent based. Previous results must be displayed.	4		
Provide lab-defined alerts for critical values and review limits at result entry. Previous results must be displayed.	4		
Provide ability for online documentation of critical value reporting process at result entry.	4		
Provide ability to define critical values for alpha results by age.	4		

General Laboratory			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Provide on line display of high, lows, critical and delta flagging of abnormal values at result entry.	4		
Provide ability to utilize test specific coded and free text comments and results at result entry without limiting the number of characters allowed.	4		
Provide capability of free text comments at order entry without limiting the number of characters allowed.	2		
Ability to prevent users to enter HL7 delimiters in result entry.	3		
Provide ability to access previous results for all departments from the results entry screen for current encounters.	3		
Provide the ability to access all previous lab results from prior encounters directly from the results entry screen.	3		
Provide ability for reporting results in numeric, free text, or coded comment format.	4		
Provide the ability for release of results after they have been reviewed and approved by authorized personnel, e.g., Pathologists for sperm in urine on a child.	4		
Provide a general pathologist review test that can be added to any general lab test and the ordered test procedure will appear in user designated pathology work queue.	3		
Provide ability to verify results by test, batch and accession number.	4		
Provide ability to verify results by range of items and instrument.	3		
Provide ability to restrict result inquiry access to lab-defined test results based on lab-defined levels of access. (HIV, employee related or legal drug screens)	4		
System allows for resulting based on accession number, patient name, Medical Record Number, instrument, test and barcode.	4		
Provide customizable automated calculations for laboratory sections including all simple calculations such as Anion Gap and complex calculations such as estimated glomerular filtration rate (EGFR) for all modules	3		
Provide the ability of an online supervisor review and documentation of critical results that have been verified and released.	4		
Provide the ability of an online supervisor review and documentation of modified results that have been verified and released.	4		
Provide the ability to verify and release partial results (individual test result elements) on an accession that may or may not have been fully verified, to the hospital HIS systems such as BMP, and CBC result except for platelets.	4		
Provide ability to correct errors such as time collected, date, comment or result both before and after result verification, and documents the person who performed each step that would also display any serial correction/change information regarding time, result, and technologist ID.	4		

General Laboratory			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Provides lists of all results completed by section with the following criteria by date, patient name, Medical Record Number, nurse unit, location and collection date/time.	3		
Provides list of all results completed by section with the following criteria by Result with any high/low, critical, delta flags, Technologist ID, comments, order date/time and accession number.	4		
Ability configure result entry screens to display last previous result for that test and when that test was performed.	3		
Identifies laboratory technicians who performed and reviewed tests.	4		
Supports printing of individual tests separately or as part of a profile.	4		
Supports delta checking.	4		
Supports duplicate order checking.	4		
Supports supervisory verification/field edits.	3		
Ability to reflex tests based on results or rules	4		
Ability to correct all parameters including verified results, retain the original value and identify the new result as CORRECTED.	4		
Supports reportable and non-reportable comments.	4		
Verification of results allows accept, reject or rerun test functions.	4		
Ability to route test results to doctors hand held device, fax machine, email, and printer	4		
Result Inquiry & Viewing			
Ability to color code orders by priority for online viewing.	3		
Provide a minimum allowable of 50 data elements for results under one header (CBC's).	3		
Online/Report must display "previously reported as" result information along with the correction.	3		
Ability to view unverified results online in a pending report.	4		
Supports on-line inquiries and searches by user-defined criteria across modules.	4		
Rules & Processing			
Provide "lock out" capability for multiple users simultaneously performing edits on the same patient tests.	3		
Provides a Rules-based logic capable of automatic verification of procedures and adding reflex orders based on patient results with billing.	3		
Provide automatic generation of reports of specific patients, tests, and critical results to specific departments.	4		
Provide capability of generating barcoded slide labels based on Rule Based Logic using a lab-defined numbering scheme along with the patient name and accession number.	3		

General Laboratory			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Duplicate checking including members of order sets such as CBC.	3		
Supports system automatically holding patient results (suppresses auto verification if QC results are out of range and exceeding time limit by analyte and analyzer).	3		
User Interface			
Provide lab-defined "hot keys" to expedite screen flow and processing as appropriate.	3		
Ability to branch to other functions and return to starting point.	3		
Provide coded templates and phrases requiring no more than 2 key strokes to insert into test results (macros).	3		
Worklists			
Provide the following information on worklists-patient name, account number (barcoded), Medical Record Number (barcoded), DOB, room/location, accession number (barcoded) and priority.	3		
Provide ability to sort work lists by priority, date ranges or workstation (auto worklist).	3		
Provide ability to auto print lab-defined worklist with accessioning by workstation.	3		
Ability to build work lists with or without QC.	3		
Generates work list by lab-defined criteria.	3		
Allows users to control and track the work list process.	3		
Supports interruption of in-progress work lists for STAT orders.	3		
Supports batch work queue capability.	3		
User customization of worklists. Edit, insert or delete items manually to create user defined functional worklist.	3		

Microbiology			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Accession Numbers			
System must be able to accommodate multiple orders for blood cultures ordered at the same time from the HIS giving a separate accession number for each culture ordered.	3		
Autoverification			
Auto-verification of negative culture.	3		
Auto-update of negative cultures.	3		
Ability to receive positive flag, positive unload and final negative unload messages from the Blood culture analyzer MDI.	3		
Billing			
Ability to bill based on the organism detected and/or test code and determines the charges that should be dropped.	3		
Ability to add charges or credit charges when appropriate.	4		
Ability to easily reverse charges for 2nd isolate of same (duplicate organism) workup when appropriate.	3		
Clinician Record			
Ability to track proficiency testing online.	4		
Database Maintenance			
Ability to build and modify susceptibility panels, antimicrobial agents, microorganisms, message codes, result codes, MIC values and susceptibility comments.	4		
Foreign System Interfaces			
Ability to accept Reference Lab Initiated orders for add on susceptibility testing, culture orders, other reflex tests and reflex billing.	4		
Ability to accept susceptibility test results including MIC and interpretation results in columnar format from Reference Lab interface and report along with the organism ID.	4		
Ability to accept coded messages from reference lab and explode the coded text in the patient test results.	3		
System accepts carriage returns from the Reference lab interface to indicate the start of a new line.	3		
System should accept carriage returns from the reference lab interface to start a new line and prevent the wrapping of text.	3		
Encoded messages can be entered within the LIS or be accepted from the reference lab interface.	3		
Micro module needs to be able to receive and display reference ranges.	2		
Ability to accept comments from the Reference Lab interface on susceptibility testing.	3		
Ability to accept reflex add-on orders to micro cultures and test procedures across the reference lab interface and pass these orders back to the HIS.	3		
Ability to accept Molecular Susceptibility results from the reference lab interface with interpretations and comments.	2		
Ability to accept susceptibility results for the following culture types from the reference lab interface: aerobic, anaerobic, fungus, yeast, mycobacteria and virus cultures.	4		

Microbiology			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Ability to accept footnotes for specific susceptibility results.	3		
Cancellations should automatically transfer from reference lab to the LIS (and then onto the HIS).	3		
All micro results from tests performed are routinely entered via the reference lab interface regardless of location. System must be flexible in allowing results to be hand entered in the LIS or come from the LIS.	2		
Labels & Barcodes			
Support media labels with barcodes; printing of labels via a predefined definition based off of specimen source, protocol, or procedure.	4		
Orders			
Source and site prompts of culture must be able to be changed at any time up to the final	2		
Collection details must be able to be modified when order is pending or complete.	3		
Charting			
Ability for lab-defined patient chart report format including preventing of wrapping of text.	2		
Quality Control			
The ability to upload existing QC data.	2		
Ability to create, track, and report QC.	3		
Ability to create, track, and report QC for both quantitative and qualitative tests.	3		
Reports			
Provide flexibility in generating epidemiology reports such as for location, client, admit type and age	3		
Flexibility for micro patient reports to print as cumulative or new information only.	2		
Ability to generate epidemiology reports electronically.	3		
Ability to pull any or all results by day and by performing technologist.	3		
Ability to generate antibiogram report per CLSI reccomendations.	4		
Ability to correlate current results with previous results, both within a single culture and across multiple cultures on the same patient.	3		
Ability to determine productivity by test and by performing technologist over a specified date range.	2		
Results			
Provide ability to flag lab defined results for public health department reporting and generate a report detailing these results.	4		
Ability to enter results by both coded messages and free text.	4		
Ability to result antibiotic susceptibilities with an S, I, NS, or R indicator and MIC result and the organism identified.	4		
Ability to define report templates for consistency and efficiency.	3		
Ability to auto flag lab-defined abnormal results for both numerical and alpha values.	4		
System must be able to accommodate susceptibility from a second colony type of the same organism.	4		
Ability to auto flag lab-defined call and critical values for both numeric and alpha values.	3		

Microbiology			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Ability to build specific patient test results into a batch that can be resulted with a specific message code and then auto-released.	3		
Ability to build 2nd level susceptibility interpretation rules for intrinsic resistance and appropriate cascade reporting.	4		
Tracking capability to view history of work performed for workcard details. If result was corrected for a biochemical, ability to see what original result was and who performed it with date/time.	2		
Result Inquiry & Viewing			
Provide ability for microbiology user to access general laboratory results and patient demographics from microbiology result and order entry screens.	3		
All reports viewable and reportable stages of the report, i.e., Prelim, Interim, and Final.	4		
Corrected reports-flagged to ensure physician is aware. Accepts format sent from Reference lab interface with columns and carriage returns as needed. Display needs to be able to handle wrapping text.	4		
All micro patient charts must display pending tests.	3		
Rules & Processing			
Ability to create rules logic to auto cancel and create message/report of inadequate specimens based on the following criteria length of stay, frequency of order and specimen type.	3		
Worklists			
Ability to support workflow of bench technologist's worksheets/work-lists/work-cards electronically online.	3		
Ability to use a paperless system for microbiology.	4		

Blood Bank			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
ADT & Registration			
Ability to merge/unmerge patient record/results for duplicate MRNs or duplicate encounters with audit trail.	4		
Bi-directional ADT updates for foreign HIS; if HIS is down the Lab could do quick registration and when HIS system comes back up it accepts ADT transactions from LIS.	4		
Auditing mechanism to identify historical information of potential problems to be evaluated prior to patient or encounter merge.	3		
Ability to move results from an incorrect encounter and/or wrong patient to correct encounter/patient, without overwriting any information.	4		
Ability to track name, DOB, etc changesthrough a demographic audit.	4		
A mechanism to aide end user in selecting correct encounter for ordering and dispensing.	4		
Billing			
Ability to bill for blood bank products at time of transfusion.	3		
Supports billing services and/or product fee for every unit transaction such as splitting, thawing, irradiating.	3		
Supports manual billing and credit override.	3		
Ability to copy all characteristics including P code or J code and CDM from one product to another, e.g. RBC E0195, RBC E0212	3		
Ability to bill an item by quantity, including those items that are billed per by IU administered.	3		
Ability to link billing across encounters for pre-admissions admitted to an inpatient encounter with a different financial number.	1		
Blood Products			
Ability to track blood products from donation through receipt into inventory, any testing performed on the product, any modification made to the product, transfers to other facilities and final disposition of each blood product. Must include date and time of the action and the user ID. Record barcodes numbers when scanned in. Record and store the source of the unit and the blood type from the source facility.	4		
Audit trail displaying product corrections, including previous value, date / time and identity of user making correction.	4		
Ability to post modifier/attribute information to the actual product from the scanning of the ISBT product code.	4		
Ability to generate reports based upon product characteristics, e.g. products expiring in X days, # of O Negative RBC units received last month, etc.	3		
Ability to link directed and autologous units to the intended recipient even if the intended recipient is not yet registered in the system.	4		
Ability to restrict the use of a product through product STATUS.	4		
Ability to restrict the component modifications that can be done based on a the product type.	3		
Ability to trace each component back to the original unit when products are modified, pooled, or aliquoted with each product generating its own product history audit trail.	4		
Ability to make aliquots of a unit for small volume transfusion and to link all aliquots back to the parent unit.	3		

Blood Bank			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Ability to issue a unit to a patient	3		
Ability to document who performed a two person check of the unit and patient's transfusion instructions at issue.	3		
Ability to document the visual inspection performed upon receipt and at issue.	4		
Ability to perform testing on a product.	3		
Ability to document that returned units meet all requirements such as temperature within acceptable range, container closure has not been disturbed, at least one sealed segment has remained attached to the container, and records indicate that the unit has been inspected and found acceptable for reissue.	4		
Ability to document the dispense location if it is different from the patient's location. (The OR for example.)	3		
Ability to define multiple storage locations outside of the main lab, transfer units to and from these storage locations.	2		
Ability to enter units into the inventory in a batch.	2		
Ability to have a dispensing and crossmatching hierarchy that will warn the user if a product has a higher rated priority e.g. autologous, directed donor. Additionally, the ability to warn by by outdate, e.g., oldest blood first for example.	4		
Ability to dispense units in the system with rules to check that the unit matches the patient's special needs, such as irradiated or antigen negative needs.	4		
Ability to undo the modification of Blood Bank pooled products or other modified products when incorrectly modified in the LIS.	3		
Supports entry of blood products via barcode reader and manual entry.	4		
Accepts more than one product with the original unit number entered at the same or different times with different product codes.	4		
Combines products when pooling and assigns a unique product number based on facility logic, Ability to pool together two different types of products (FFP and red cells) and ability to pool different products with different blood types. Abililty to produce the corresponding ISBT product label.	4		
Provides expiration dates by time of day and date and provide a default of 23:59 for products that do not expire by hour increment.	4		
Provide ability to modify expiration date and time for products.	3		
Allows expiration date/time to be overridden when standard rules for outdating do not apply.	3		
Supports lab-defined tests for product testing.	2		
Automatically provides availability of products not requiring confirmation.	3		
Supports component preparation on reserved and unreserved units.	3		
Provides the ability to split single units into multiple new units and have new units to receive the same number as the original units with a unique and sequential division level.	4		
Prints labeling tag with the appropriate product code and patient identification information when components are crossmatched or assigned.	3		
Ability to enter locally assigned ISBT product codes.	3		
Clerical check using specific visual inspection and Reasons With Meanings to pass/fail suitable/unsuitable units.	1		

Blood Bank			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
System to aide user in selection of most suitable for the patient based upon product attributes, expiration and compatibility	4		
Ability to dispense units emergently.	4		
Ability to record final disposition, including the ability to return products to the blood center.	3		
Ability to assign specimen and product expiration dates as days not hours. (Specimens expired at 23:59 on T+3)	2		
Collections/Specimen Procurement			
Ability to track specimens and document each stage of patient specimen processing from initial collection through transport, receipt, testing, storage, retrieval and final disposal.	4		
Ability to log patient specimens into storage and quickly locate them by rack, position and refrigerator when additional testing is required.	1		
Provide list of specimens to be discarded according to lab-defined retention periods	1		
Ability to assign specimen expiration dates by protocols, such as pre-admission testing and neonatal	1		
Ability to define rules that would group orders for tests and products onto the same specimen over multiple days.	2		
Data Conversion			
Ability to upload unit history from current LIS to the new LIS, including units that are or are not associated with a patient.	3		
Ability to upload patient historical information from the current LIS to the new LIS for the following data elements: ABO/RH, antibody history, antigen typing, special product needs, and comments.	3		
Downtime			
Process for printing component, aliquot, and pooled product labels for ISBT128 and Codabar.	2		
Process for accessing critical patient information during computer downtime that is stored locally not on the network. Includes ABO/RH, antibody history, antigen typing, special needs, transfusion reactions, indate specimen location.	4		
Interfaces Needs			
Ability to interface bi-directionally to blood bank analyzers such as the Ortho ProVue.	2		
Ability to receive blood product orders from the blood center through a HL7 interface.	1		
Ability to accommodate blood product ordering by unit or volume.	2		
Ability to file order query responses to the requisition.	2		
File QC performed on a analyzer through an interface.	1		
Ability to receive orders for blood bank tests or blood product requests for transfusion from the HIS through a HL7 interface.	3		
Ability to send orders for blood bank tests or blood product requests for transfusion to the HIS through a HL7 interface.	1		
Validation/Implementation			
Provide written validation, i.e., test scripts, plans with specific exercises for validation of all software functions for BB module as required by regulations.	2		
Provide blood bank training by an experienced blood bank analyst.	2		

Blood Bank			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Ability to provide Go-live Support with an experienced blood bank analyst within the department.	3		
Vendor willingly supports client site visits and workshops to engage new clients using the software. Would make design decisions much easier.	2		
Labels & Barcodes			
Ability to utilize ISBT 128 barcodes for inventory entry, dispense, crossmatching, final disposition. Including concatenated barcodes.	4		
Assigns barcoded unit numbers for products made by the facility using ISBT 128 barcoding.	4		
Ability to customize format of the Issue/Transfusion Tag which accompanies the units during transfusion. Ability to print multipart forms with an imbedded label.	2		
Ability to use barcoded unit number throughout all patient and donor testing.	4		
Ability to print and use barcoded specimen labels.	2		
Ability to utilize Codabar barcodes for inventory entry, dispense, crossmatching, final disposition.	1		
Assigns barcoded unit numbers for products made by the facility using Codabar barcoding.	1		
Pooled product numbers generated will utilize facility FIN, as specified by ICCBBA.	4		
Ability to print tags that include a readable barcode that can be used for bedside patient/unit identification. The system should be fully integrated so that there is a warning when the patient ID + unit barcode + printed barcode do not match.	2		
Notifications & Warnings			
Support user alerts and warnings, i.e., pop-up windows and sounds, and the ability to prevent users from continuing until alert/warning is mitigated and track user actions with an audit trail.	3		
Provides a Management report of all errors or corrections.	3		
Ability to define conditions that generate a warning.	2		
Notification to Blood Bank of all patients merges from HIS with an audit trail.	3		
Allow override of warnings based on security roles.	3		
Provide a mechanism for alerting the user when selecting a unit that does not meet the patient's transfusion requirements.	4		
Alert for new patient rders indicating blood product requests.	4		
Patient History			
Provide integration of blood bank module with general laboratory module. Ability to pull lab values into blood bank reports.	2		
Provide patient demographic "banner" at top of worksheet screen with user-defined patient demographics including by not limited to patient name, Medical Record Number, blood type and antibody and special needs history (irradiated, Leukopoor and antigen negative.	2		
Ability to flag patients with problems including antibody problems, special needs, comments, or specific admitting diagnosis code.	3		
Ability to create a donor antigen typing file/list that can be searched for current patient compatibility.	1		
Ability to link patient testing across encounters for preadmissions admitted to an inpatient encounter with a different financial number.	2		

Blood Bank			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
All blood bank screens should display patient ABO/RH and antibody HX, and special transfusion needs such as irradiated.	3		
Support the ability to add and remove antigen/antibody and special needs from patient history with an audit trail.	2		
Ability to change a patient's blood type with an audit trail and restricted by security role.	3		
Ability to remove a patient's blood type so they will be treated like a new patient. Able to restrict this by security role.	2		
Customizable alert fields that allow the site to determine what size they want to make the windows with color preferences, etc.	3		
Quality Control			
Able to record lot number, expiration date, reagent name that is preferably barcode capable with the ability to enter reagent QC data such as routine ABO/Rh, antibody screen, rare antisera-antigen typing with controls (positive and negative)	1		
Ability to track and trend reagent lot numbers, expiration dates, and other required QC data for rare antisera, ABO/Rh, and Red Cell Test Kit.	1		
Regulations & Standards			
Provide FDA approved Blood Bank system.	4		
Ability to manage all procedures and testing performed on blood donors and products within the regulations and guidelines of the AABB, CAP, FDA and JCAHO	4		
Provide ability to perform electronic crossmatching that is FDA compliant.	4		
Reports			
Ability to print inventory reports by product, ABO/Rh, product comment and antigen typing.	3		
Disposal reports, including products returned to the supplier, product recalls and wastage.	3		
Transfusion reactions - Easily identify units in which the recipient had an adverse reaction.	3		
The ability to see product comments on inventory reports.	1		
Ability to customize a crossmatch transfusion ratio report based on but not limited to Physician, medical service, patient location or product type or group.	3		
Ability to generate staff productivity report.	1		
Ability to calculate ratios of orders to transfusion reports for non-crossmatched products such as platelets based on but not limited by Physician, product type or group, patient location and medical service.	2		
Provide outdated unit report by day, month, year and lab-defined periods by product type and by all products.	2		
Provide short date unit report by day, month, year and lab-defined periods by product types.	1		
Real time available inventory report that refreshes automatically every few minutes that contains the unit number, blood type, product description, expiration date, volume, and storage location. Ability to display the report on a large screen continuously.	2		

Blood Bank			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Real time pending report that refreshes automatically every few minutes that contains the outstanding tests to be done in the department. Ability to display the report on a large screen continuously.	2		
Provide list of patient specimens which have reached the 3 Day expiration limit that is based on "Day 0" and is not calculated hourly.	2		
Results			
Ability to record all phases of reactions for crossmatches and other testing, including tech ID.	4		
Provide lab-defined reaction grading.	4		
Provide unlimited free-text comment capability per procedure.	1		
Transfusion reaction work-up that contains multiple specimens performed in multiple departments all contained in one group test. Example of group test would include Blood Bank work up ABO/Rh, antibody screen, DAT, clerical validation, pre and post crossmatch results, visual inspections for hemolysis and icterus. Chemistry pre and post BUN, Creatinine and Bilirubin. Urine dipstick for Hemoglobin. Urine Microscopic for RBC. Micro gram stain and culture results. Interpretations that include the pre and post CBC results.	1		
Ability to order additional testing in result entry functions without have to exit and return to the result entry function.	1		
Ability to add on tests through reflex rules.	1		
Ability to not make the reverse grouping result field a required field for neonates up to a specified age.	1		
Ability for the system to determine if a full forward and reverse type has been documented, along with other clinically relevant criteria so that patient patient qualifies for electronic crossmatch.	1		
Ability to specify which fields are required and optional based on user-defined criteria such as age and sex.	1		
Support all blood bank proficiency testing on QC patients or surveys that mirrors patient testing and data entry.	3		
Supports antibody and antigen screening functionality documenting each phase of testing and reaction grade.	1		
Patient's history is automatically updated by test results.	3		
Supports unlimited entries of antigen or antibody data with a single orderable.	1		
Supports batch testing through worksheets/spreadsheet resulting screens.	1		
Support the ability to remove antigen/antibody and special needs from patient history with an audit trail.	3		
Ability to enter results without releasing them to the interface or to be viewed by customers. (File with out verify)	3		
Ability to create a textual report that pulls in test results from blood bank, core lab, micro, and virology. Ability to use macros to build the report.	2		
Capturing pathologist electronic signature and interpretation for transfusion reactions.	2		
Ability to send the textual report to the HIS through a HL7 interface.	1		
Capability to document controls and patient testing, but send only patient interpretations to downstream systems.	2		

Blood Bank			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Supports large volume batch testing with functionality to stop building the worksheet/queue.	1		
Ability to use timed comments where system will delete the comment after a specified period of time and write the deletion to an audit trail.	1		
Result Inquiry & Viewing			
Ability to review lab-defined general lab results at dispense and setup (crossmatch) without exiting to another function or switching to another window.	1		
Provides patient testing history section for review such as demographics and transfusion history.	3		
Allows trending with patient's previous results.	3		
Rules & Processing			
Ability to define any blood bank test, such as ABO/Rh or crossmatch, with logic to automatically formulate an interpretation based upon pattern recognition.	1		
Provide rules based logic to flag erroneous results at result entry with multiple alert/warning levels that are lab-defined. Must have the capability to prevent user erroneous interpretation, e.g., if a positive result is entered on an antibody screen during any phase of testing and the tech tries to interpret the antibody screen as negative, the system should provide an alert.	4		
Supports system logic to prevent dispense of incompatible blood and components.	4		
Ability to auto quarantine based on lab-defined criteria such as unit dispensed greater than 30 minutes based on dispense location, bacterial testing, pH on platelets and visual inspections.	2		
Ability to auto presume transfuse units.	3		
Ability to order reflex testing based on interpretations of certain tests.	1		

Anatomic Pathology			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Accession Numbers			
Ability for staff to manually assign an accession number.	4		
Allow for alpha prefixing of accessions.	4		
Auditing			
Audit trail for electronic billing.	2		
Collections/Specimen Procurement			
Ability to track stages of specimen processing such as gross and stains by Pathologist.	3		
Provide ability to correlate diagnoses for related patient specimens (frozen section and final diagnosis or cytology and surgical pathology diagnosis).	3		
Tracking of chain of custody needs for legal cases.	2		
Supports lab-defined case numbers and groups.	3		
Ability to track by specimen number and lower into sub slides and subspecimens. Want to be able to collect all sub slides into one sample for review.	3		
Ability to subassign specimen and case to a resident under an attending physician	3		
Database Maintenance			
Provide AP module integration with General Laboratory module that utilizes the same database and data dictionary.	3		
Supports and integrates SNOMED CT codes.	4		
Supports lab-defined case numbers and groups.	3		
Foreign System Interfaces			
Provide a standard HL7 interface for third-party dictation/transcription systems.	4		
Provide ability for Addendum results and corrected results to post to the original order on HIS.	4		
Ability to take images and photos of gross specimens and include in reporting	3		
Ability to take images and photos through a microscope and include them in reports and results	3		
Ability to interface with imaging technologies for digital images	3		
Provide a standard HL7 interface for AP results	4		
Instruments & Handheld Devices			
Interfaces to cassette labeler, slide etcher, slide sorter.	2		
Labels & Barcodes			
Provide barcoded requisitions, slide labels (including H+E, special stains, IHC, and ISH), and block labels with lab-defined user elements such as patient name and accession number.	4		
Support for 2D barcoding technologies.	3		
Notifications & Warnings			
System should alert user during order entry if previous AP specimen has been ordered on that encounter in a 72 hour timeframe.	3		

Anatomic Pathology			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Provide electronic notification to the ordering Pathologist that orders for re-cuts, special	3		
The ability to enter priority for pathology specimens so that the order will present at the beginning of the queue and ability to change any tests previously designated priority allowing for a case to be designated rush or stat without changing the order itself.	3		
Ability to track thru Order to Worklist by Specimen by Pathologist and sub-assignment	4		
Electronic order entry for inpatients as well as outpatient clients.	3		
Ability to assign specimen to multiple physicians within Pathology department.	4		
Outreach Services			
Ability to document callbacks and read-backs of added tests, stat, requested and critical	2		
Regulations & Standards			
Reports comply with CLIA '88 regulations.	4		
Support additional approved and accepted standards such as Bethesda 2001 GYN cytology reporting; ICD-9 / ICD1-10 coding; AJCC tumor protocols.	3		
Support Flow Cytometry; FCS standards (FCS2.0 – data file format), alpha-numeric and large text blobs through interfaced analyzer.	2		
Reports			
Ability to generate daily/weekly/monthly QA reports for AP based on texts such as the word	3		
The ability to design custom statistical reports for QA, QC and patient care purposes.	4		
Incorporation of Digital Imaging and Photos (Microscope, Gross Specimen) Aperio Digital Imaging interface into reports	3		
Provide the ability to include General Laboratory data in Pathology reports, e.g., selectively pulling in a CBC result into the path report.	3		
Ability to integrate reference lab molecular pathology reports and images into Primary AP report, i.e., FISH and Cytogenetics.	3		
Support voice recognition navigation within application.	3		
Provide discrete reporting for pathology (synoptic reports).	3		
Remote report distribution support.	4		
Results			
Ability to integrate outside image files into AP report, i.e., dot plots from flow cytometry.	3		
Ability to do easy comparison of frozen sections-correlating different stages of the samples	3		
Provide case report templates, text insertion, and macros.	4		
Provide the ability to place orders directly from a case while drafting a report.	3		
Provide the ability to order re-cuts, immunostains, special stains, etc. from pathologist desktop with ability to add comments/special instruction that are viewable and printable on a	3		

Anatomic Pathology			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Provide access to status of additional orders for i.e., re-cuts, immunostains, specials stains, etc.	3		
Ability to status a case as pending for outside consultation.	3		
Ability to print the pending status of a consultation.	3		
Provide structured documentation for autopsy reporting that allows for exception documentation.	3		
Provide standard functions word processing functions such as bolding, underlining, tabs, copy and paste that are MS Word based or MS Word integrated.	4		
Performs spell checks based on English, medical, and anatomic pathology terminology.	4		
Provide an interesting case file that the user can tag a report that can be sub-categorized for teaching, controls, etc.	3		
Ability to indicate and auto generate the clinical tumor staging form required for malignancies that a referring clinician needs to fill out.	2		
Provide the ability to scan in paper documents from other entities.	3		
Data search definitions by SNOMED, diagnosis, requesting doctors, etc…	3		
Provide the ability to search previous patient history from history upload of legacy AP System.	4		
Hold mechanism/notification system for open cases.	2		
Result Inquiry & Viewing			
Provide ability to indicate a case has been corrected and contains an addendum after final case sign-out.	4		
Capture, store, and integrate gross and microscopic color images into AP surgical pathology and cytology reports.	2		
Provide electronic signature for signing out finalized cases.	4		
Ability to view online color images from AP reports.	2		
On historical searches can you search AP data by discrete data elements.	3		
Ability to track cytology statistics GYN and non-gyn	3		
Track different cytology screeners.	4		
Electronic tracking and notification of across case correlations.	3		
Documentation and management of "outside cases"	3		
Documentation and management of peer review cases	3		
Rules, Processing, & Workflow			
Provide Natural language search capability.	2		
Paperless work flow process.	2		
Electronic tracking of storage and disposal of inventory, controls, slides, block.	3		
Sendouts			
Capabilities for tracking send outs / consults / legal cases.	3		
User Interface			

Anatomic Pathology			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Support voice recognition navigation within application.	2		
Provide the ability to use the numeric keypad and a mouse in all text editing functions.	4		

Quality Control			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Autoverfication			
Out of range or time limit for QC automatically disables auto verification.	4		
Auto verification of QC results per analyte or panel.	3		
Database Maintenance			
Provide a QC module that is fully integrated with all LIS modules including General Laboratory result entry functions, Blood Bank, Microbiology and Anatomic Pathology.	3		
Ability to upload QC data to a vendor's website	3		
Supports lab-defined check limits based on the SD.	3		
Maintains quality control specimens and results in separate data files.	3		
Provide ability to download QC results to a PC/other applications.	3		
Provide ability to lab-defined online troubleshooting steps for QC failures.	3		
Ability to enter pre-active QC to roll over when old QC expires.	3		
Ability to have lab-defined QC templates for troubleshooting.	3		
Foreign System Interfaces			
Ability to support real-time online QC management with instrument/reagent vendors.	3		
Inventory			
Provide ability to manage QC reagent/media inventory to include multiple lots simultaneously.	3		
Multiple Lot Management			
Ability to document all parallel testing of new materials.	3		
Ability to have 2 active reagent lots in use.	3		
Ability to schedule QC to be run.	3		
Provide QC history that is versatile. Provide unlimited number range for QC Levels.	3		
Provide ability to auto activate a new lot date and time number of control material based upon a lab-defined date and time.	3		
Ability to pre-activate Quality control files for a specific user defined date/time when they will be available for user result entry.	3		
Ability to activate Quality control files for a specific user defined date/time when they will be available for user result entry.	2		
Online graph functionality to allow multiple levels of control on a single graph or multiple lots on a single graph.	3		
Notifications & Warnings			
Provide alert when defined acceptable range has been exceeded.	3		
Reports			
Ability to print and display QC data for user specified date range on demand less than or greater than 30 days.	3		
Provide flexibility in graphing all types of QC data, e.g. numeric, alpha less than or great than 30 days.	3		
Provide ability to drill down on points on the Levy-Jennings to display the result information represented by the point.	3		

Quality Control			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Ability to print, email, and view on screen Levy-Jennings	3		
Ability to mark QC results and corrective action as reviewed electronically.	3		
Automatically computes the mean and the standard deviation for each batch, day, etc.	3		
Ability to document an on-line review with ability to document follow up actions.	3		
Performs and updates the quality control results file indicating an acceptable standard deviation and coefficient of variation.	3		
Provides quality control summary reports.	3		
Supports documentation of corrective actions taken and by whom.	4		
Provide the ability to extract and print QC data by analyte, QC type, QC lot, current or new, by instrument and date range.	3		
Provide ability to preview and print QC data statistics on the Levey-Jennings and on the summary. The QC material defined report should have at least established mean and SD along with obtained Calculated mean, SD, Z stat, F value. This report should be monthly as well as allow user to define specific interval.	3		
Provide ability for supervisor to edit QC point to include or exclude from statistics.	3		
Ability to print QC acceptable and unacceptable results by lab-defined criteria.	3		
Results			
Ability to document corrective action as well as requiring action prior to returning to normal operations.	3		
Ability to pull a report to identify the specimens run with a certain lot number.	3		
Ability to enter QC data via manual or instrument interface.	3		
Lot number and expiration date displays on QC result entry screen.	3		
Quality control automatically checks by test and lot number to user entered acceptable ranges for that QC value by absurd checks, abnormal checks, out of range QC display with H or L flag and alerts user distance from the mean with SDI for every QC number.	3		
Checks quality control results and flags abnormal values on resulting screen.	3		
Provide ability of staff to online select troubleshooting step or free text in steps taken for QC failure.	3		
Provide staff ability to see a lab-defined range of entered QC data points for any QC test by instrument.	3		
Provide ability of user to see defined acceptable QC range and SD on screen at result entry.	3		
Ability for electronic documentation for secondary QC review.	2		
Result Inquiry & Viewing			
Ability to include corrective action and technologist performing on report printouts.	3		
Rules & Processing			

Quality Control			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Support the use of multiple Westgard rules.	3		
Ability to select certain Westgard rules.	3		
Ability to flag delta changes in QC results	3		
Automatically suspends further processing of patient test results where quality control results are unacceptable by analyte by analyzer.	3		
Ability to calculate linearity statistics	3		
Support absolute values and alpha type QC.			
Security			
Provide secured online access to QC data from all terminals.	3		
Specimens			
Support for patient specimens used for quality control	3		
Storage			
Ability to retain QC data online for lab-defined period of time.	3		
Online QC supervisor review is stored for at least two years.	3		
All QC data must be stored for two years.	3		
Blood Bank QC data must be stored for five years including documentation of review and corrective action.	3		
Provide the ability to purge QC data after the two or five year storage requirement has been met.	3		
Worklists			
Assign QC specimens to worklists automatically or manually	3		

Security			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Provide hidden/masked password entry.	3		
Capability to define password expiration timeframe by System Administrator.	3		
Support password history tracking to prevent reuse of the last 'n' number passwords. The lab should be able to define 'n'.	3		
Vendor access to the system using a secure connection such as VPN.	2		
Provide for ability for user to change their password at will.	3		
Ability to auto disable a user id after a lab-defined number of failed login attempts.			
Provide the ability to specify the minimum password requirements such as minimum length, mixed case, number of alpha characters, number of numeric characters and number of non-alphabetical/special characters.	3		
Support a user ID that can be up to 20 characters in length.	3		
Automatically logout a user after a specified time of inactivity has elapsed.	3		
Ability to define for users and user groups the time of inactivity before a user is automatically logged out.	3		
Provide the ability to specify and restrict the number of simultaneous login sessions for users. The System Administrator must have the ability to change this setting at will for individuals and user types.	2		
Ability to grant and restrict access to application elements such as modules, functions and commands, application tasks and components, patient data, system data files and database setup/build tools.	4		
Ability to control lab-defined access to application elements specified in function line 11 above by individual users and user groups/types.	3		
Ability to restrict access to individual tests and results based on confidentiality and sensitivity.	3		
Provide ability to set up groups for which it is possible to modify the access of everyone in the group by modifying one central template or profile. Examples of user groups would be phlebotomist, histology tech, etc.	3		
Provide real-time security audit logging that meets or exceeds HIPAA requirements.	3		
Provide real-time event notification of security violations.	3		
Provide detailed audit logging with date range capability of successful/unsuccessful login and logout of users and denial of service events.	4		
Ability to add, modify, and delete actions on all data/files/objects; plus read/view actions on all data and the use of all privileged accounts and utilities.	3		
Ability to change user accounts or privileges (creation, modification, deletion), access to security files, attributes or parameters and communications/messages by content, user and date.	2		
Provide an auditing tool that allows user to select criteria from a menus of options to pull up specific information requested, e.g., who accessed patient result(s) for a defined timeframe.	3		

Security			
Functional Description	Score (1-4)	Vendor Weight	Comments
After password expiration has elapsed, force the user to change their password and to not automatically lock them out of their account.	2		
Ability to inactivate and activate security IDs as needed.	4		
Support ability to force logout by individual users or by user group.	3		
Ability prevent users from logging on to the system.	4		
Ability to pass credentials to Active Directory to support single sign on.	2		
Ability to auto expired if the account has not be used in a defined amount of time.	3		
Ability to set password requirements for length and characters	4		

Interface Requirements			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
General			
Ability to interface to third party electronic billing systems	4		
Ability to interface to Point of Care systems including docked results and interfacing of results manually entered into HIS	4		
Ability to FTP files.	4		
Ability to inquire on interface transactions in/out to all systems.	4		
Ability to view and inquire on positive and negative messages regarding transaction processing.	4		
Store processed and skipped transactions for a minimum of 30 days before purging or overwriting.	2		
Allow for a string search through the interface records (Patient ID or Patient Name).	3		
Provide robust monitoring abilities to manage skipped transactions, lost connections, queued transactions (inbound and outbound).	2		
Ability to edit messages and reprocess or resend	3		
Ability to requeue outgoing messages	4		
Support hyphenated patient names.	2		
Support newborn admits as separate patients from the mother (B-baby processing).	2		
Support standard HL7, real-time interfaces for ADT transactions and add on orders from LIS to HIS	4		
Support order entry from HIS for Pathology, Micro, Core Lab, and Blood Bank and order status updates from LIS to HIS at receipt.	2		
Ability separate orders on to separate accessions based on customer defined rules	4		
Grouping of orders onto one request based on customer defined rules	4		
Result interface to HIS including Pathology, blood bank, MIC, Core Lab	3		
Add-on orders from HIS combine with original requisition	3		
Send LIS initiated orders to HIS	4		
Ability to imbed PDFs in interface messages	2		
LIS must have at least a test/cert, production, and development /build environments.	4		
Support sending normal ranges and units of measure.	4		
Support the following standard HL7 standard events for A01 - Admit / visit notifications; A03 - Discharge / end visit; A04 - Register a patient; A05 - Pre-admit a patient.	4		

Interface Requirements			
Functional Description	**Score (1-4)**	**Vendor Weight**	**Comments**
Support the following standard HL7 standard events for A06 - Change an outpatient to an inpatient; A07 - Change an inpatient to an outpatient; A08 Update patient information; A11 - Cancel admit / visit notification; A12 - Cancel transfer; A13 - Cancel discharge / end visit; A14 - Pending admit; A17 - Swap patients; A18 - Merg patient information; A27 - Cancel pending admit; A32 - Update to patient demographics and A38 - Cancel pre-admit.	3		
Ability to support Meaningful Use HL7 version of 2.5.1	4		
Ability to support PID, ORM, ORU, OBX, NTE, EVN, PV1, PV2, ORC, "Z",	3		

Molecular / Genetics			
Functional Description	**Score (1-4)**	**Vendor Response**	**Comments**
Global Requirements			
Support for manual and automated Molecular pathology testing, genetic testing, HLA testing with automatic allele updating, flow cytometry, and electron microscopy. Specialized testing support by patient or enterprise demographic. Example: geriatric, pediatric, cancer, or research. Support for new, future, and emerging testing technologies, i.e. stem cell. Support for revenue production as well as academic research testing.	3		
Support for PC, Mac, and Linux. Support for online application hosting solutions such as Citrix.	3		
Oracle RDBMS database. No proprietary databases or "homegrown" database solutions. Example: Not like Epic!	3		
Software and Hardware Redundancy.	4		
Support for a down-time operational mode.	3		
Online QC documentation and record-keeping.	2		
Support for electronic consultations between peers.	2		
Support for hosting departmental SOPs that are can be updated by a system administrator. Ideally the SOPs would be a drop down from the help menu.	1		
Online help for application.	2		
Accessioning			
Support for 2D and future barcoding technologies	3		
Support for complex accessioning schemes, different prefixes, outreach specimens, AP, Cancer cytogenetics.	4		
Accessioning support for research studies. Include the ability to accession by study and track specimens across a study	3		
Electronic and/or web based supported order requests.	2		
Support for a completely user defined accessioning system with no limitations on the field names, layouts, or accessioning schemes.	3		
Processing/Tracking			
Support for the build of complex testing protocols that is all inclusive. All testing ordered should have billing and coding integrated.	4		
Support for complex inventory management, specimen location tracking throughout an enterprise from accessioning to sign-out.	3		
Support for technical resulting, ability for laboratory technologists to enter results for review by PhDs and pathologists	3		
Support for add-on testing.	4		
Support for cancellation of testing with reason.	4		
Support for reprocessing. Specimens testing is often needed to be repeated due to inescapable technical issues.	2		
Statistical Reporting			
Turn around time Tracking	3		
Specimen tracking by section, laboratory, specimen type, test type, etc.	3		
Historical results archiving.	3		

Molecular / Genetics			
Functional Description	**Score (1-4)**	**Vendor Response**	**Comments**
Support for Ad hoc query reporting with graphing functionality built in to support research, utilization, and trending. This functionality should be intuitive and useable to end users without the need for end user support from system programmers. A crystal reports style system would be great.	3		
Support for exportation of system results for upload and submission to academic and	2		
Coding/Billing			
Smart Billing- Rules based billing counting testing performed automatically applying pre-defined CPTs.	3		
Support for ICD-9 and ICD-10 coding.	4		
Support for SnoMed CT and LOINC.	4		
Support for user defined coding programs.	2		
Interfaces			
Support for interfacing to third party ADT, Billing, Registration, Scheduling and Electronic Health/Medical Records Software Systems.	4		
HL7 results interface support.	4		
Support for interfacing software system to testing instrumentation to include the ability to electronically monitor testing status as well as the importation of any text based results, image based results, graph or tabular results directly into the software's resulting functionality.	3		
Resulting			
Support for transcription and advanced Word Processing. The Word Processor should be capable of handling different font styles and colors, loading custom medical dictionaries (Example: Stedman's Anatomic Pathology), and support for Greek characters such as alpha, beta, etc. Transcription support should also extend to workflow tracking, tracking cases by status, those that need resulting or those that are ready for PhD or MD review, cases that need revision, cases that need corrections or addendums.	4		
Support for integrated and third party speech recognition software control and resulting (voice dictation). This should include the ability load saved digital voice recordings to the software for transcription by the software.	3		
Support for imaging in word processing or resulting program to allow for inclusion with the final report. The resulting program must be capable of importing a wide variety of file formats to include .pdf, .tiff, .jpg, .gif, .png. etc.	3		
Support for local and long distance telepathology. I.E., allows users to transfer information/images about specific areas marked for review or consultation.	2		
Sign-out support for technologists, residents, fellows, PhDs, and M.D.s controlled by a software based security module.	4		
Support for synoptic style reporting, form based menu driven resulting, canned text, and inclusion of testing results into Anatomic Pathology software.	3		
Support for "real" electronic signatures and credentials.	2		
Reporting			
Support for faxing, emailing, remote printing, mail merges report distributions.	4		

Molecular / Genetics			
Functional Description	**Score (1-4)**	**Vendor Response**	**Comments**
Support for online web hosted portal accessible by submitting physicians and clients with at least 128 bit encryption.	2		
Support for manual printing or results or scheduled/location based distributions.	4		
Support for printed images and logos.	3		

Overview: The advances of genetic and molecular diagnostic testing have resulted in a significant increase in the demand on genetics laboratories. Laboratories and healthcare information technology software development companies struggled initially to fully appreciate the complexities presented by genetic and molecular testing but have made great strides in closing the gap over the past few years.

Ultimately, a viable genetic and molecular testing system must:
• integrate seamlessly within the platform they are installed on or with legacy hospital information systems
• support a broad range of specialties such as biochemistry, cytogenetics, diagnostic pathology, flow cytometry, and in some cases immunogenetics.

Additional requirements include:
• advanced clinical reporting
• decisions support rules
• instrument integration
• management reporting and the management of reagent inventory and related supplies.

Instrument integration, in the case of genetic and molecular testing, often comes with a unique data set not in line with traditional medical device interfaces. Vendors continue to be pressured as the medical technology advances to keep up with the integration requirements thereby enabling automated data retrieval from the instrumentation. This efficiency is increasingly important as the demand for this testing continues to increase.

Management reporting for inventory management, productivity management, quality assurance and for use in publications and research presentations is also essential. As the testing in this environment is extremely time intensive, costly and plays a critical in the role in the planning of treatment plans for patients with acute illnesses a robust management reporting package is a must have.

Clinical reporting for genetics and molecular labs again proves to be more challenging than traditional clinical lab requirements as the combination of discrete, free text, imaging, graphing and structured standard and user-defined templates are essential. Clinical reporting is another areas where tremendous efficiencies can be realized if the processes can be streamlined via automation. As many of these labs are competing to provide a service in the market place the clinical reporting capabilities are critical to any viable system.

Lastly the rules engine must provide for the ability to support a myriad of alerts and notifications to ensure that protocols and standards are effectively followed and to reduce or even eliminate costly errors. These rules must be provided out of the box as templates to ease the implementation process but must also be customizable to the requirements of each organization