HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank		
Document:	Multidisciplinary Policy and Procedure		
Title:	Quality Indicators and Systems Checks		
Applies To:	All Laboratory and Blood Bank Staff and Quality Management Staff		
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1. PURPOSE:

1.1 The laboratory shall develop the quality indicators to evaluate and detect problems.

2. DEFINITONS:

2.1 Quality Indicators: Is specific performance measurements designated to monitor one or more processes during a defined time.

3. POLICY:

3.1 The laboratory must always select key quality indicators covering pre-analytical, analytical, post-analytical phases of laboratory and blood bank operations.

3.2 The laboratory must specify; Data collection, reporting, and monitoring procedures of quality indicators.

3.3 The laboratory selects and monitors key quality indicators covering the pre-analytical, analytical and post-analytical phases of laboratory operations. The following quality indicators may be monitored (may include, but are not limited to, the following:

- 3.3.1 Test order appropriateness
- 3.3.2 Patient identification/specimen collection:
  - 3.3.2.1 Inpatient wristband identification error
  - 3.3.2.2 Patient satisfaction with phlebotomy
  - 3.3.2.3 Specimen identification, preparation, and transport
  - 3.3.2.4 Specimen inadequacy/rejection
  - 3.3.2.5 Blood culture contamination
  - 3.3.2.6 Urine culture contamination
  - 3.3.2.7 Specimen container information error
- 3.3.3 Result reporting:
  - 3.3.3.1 Corrected laboratory reports
  - 3.3.3.2 Critical values reporting
  - 3.3.3.3 Turnaround time (TAT) of routine, STAT and urgent requests.
  - 3.3.3.4 Clinician satisfaction with laboratory services
  - 3.3.3.5 Critical value reporting failures
  - 3.3.3.6 Follow-up of abnormal cervical cytology results
- 3.3.4 Incident report
- 3.3.5 The selected transfusion services indicators may include, but are not limited to, the following :
  - 3.3.5.1 Adverse reactions
  - 3.3.5.2 Usage and discards.
  - 3.3.5.3 Ability to meet the patient s needs(availability of blood product)
  - 3.3.5.4 Blood ordering practices (cross matching/transfused ratio).

3.4 The laboratory will involve in hospital-wide/multidisciplinary improvement projects. The laboratory will engaged in at least 3 quality improvement projects, including: Two general laboratory projects, One blood bank project.

3.5 The selected improvement tool is FOCUS PDCA tools.

4. PROCEDURE:

4.1 Selection of quality indicators must be done by laboratory quality management officer and approved by the Director of laboratory and blood bank department, in compliance with Total Quality Department. The criteria for selection are:

- 4.1.1 The candidate quality indicator must be in alignment with hospital goals, and risk management that are identified in the hospital strategic plan.
- 4.1.2 The candidate quality indicator must be able to measure performance of action plans of potential errors, with varying severity and frequency.
- 4.1.3 The candidate quality indicators must cover all phases of laboratory processes, pre-analytical, analytical, and post-analytical.
- 4.1.4 The candidate quality indicators must be based on costumer concerns, and available resources.
- 4.1.5 The candidate quality indicator must fall in one or more of the dimensions of clinical performance and aims for improvement, such as:
  - 4.1.5.1 Safety.
  - 4.1.5.2 Effectiveness.
  - 4.1.5.3 Patient -cantered care.
  - 4.1.5.4 Timeliness.
  - 4.1.5.5 Efficiency.
  - 4.1.5.6 Equity.
  - 4.1.5.7 Appropriateness.
  - 4.1.5.8 Availability.
  - 4.1.5.9 Continuity of care.

4.2 Development of Quality indicators is the responsibility of laboratory quality management officer, and it must covers:

- 4.2.1 Development of operational definition for each quality indicator selected. The operational definition must be clear and unambiguous, and must cover all these elements:
  - 4.2.1.1 Indicator identification: witch must be a clear name of the measurement.
  - 4.2.1.2 Statement of the purpose of the measurement, and how it relate to the selection criteria mentioned in procedure number (1) of this policy
  - 4.2.1.3 Develop the Scope: by defining the activities that being measured and the activities that being excluded.
  - 4.2.1.4 Define the authority that all quality indicators are monitored by , as the Director of Laboratory and blood bank department
  - 4.2.1.5 Define the domains that are addressed by the indicators, by defining:
    - 4.2.1.5.1 The Quality System essentials in which the indicator serves.
    - 4.2.1.5.2 The Laboratory section.
    - 4.2.1.5.3 The phase of laboratory process, served by the QI.
- 4.2.2 Development of data collection plan: a specific data collection plan must be defined for every QI, and it must cover these items:
  - 4.2.2.1 individuals responsible for data collection, assigning the data collectors the responsibility of laboratory director, taking in concerns personal qualifications, and current responsibilities
  - 4.2.2.2 Duration of data collection.
  - 4.2.2.3 Frequency of data collection.
  - 4.2.2.4 Data sources must also be defined for every QI, acceptable sources such as :
  - 4.2.2.5 Laboratory records.
  - 4.2.2.6 Surveys designed for each QI.
  - 4.2.2.7 Sampling scheme must be defined if the analysis is not covering all data, and it must avoid any cause of bias.
  - 4.2.2.8 Define targets and limits.
  - 4.2.2.9 Define if the data will be calculated or manipulated manually or by the use of special computer program.

4.2.2.10 Define the presentation form of data, tables, bar charts, control charts, and graphs, all are acceptable.
4.2.2.11 Define the individual or committee receiving the reports of monitoring, and time frame, format, and rout of distribution of reports.

4.2.3 Establishment of performance targets must be approved by laboratory and blood bank director:
4.2.3.1 To establish performance targets first must identify current baseline.
4.2.3.2 Establish performance targets that are:
4.2.3.2.1 Based on the hospital/laboratory and blood bank goals.
4.2.3.2.2 It must be feasible.
4.2.3.2.3 Critical to the improvement of performance.
4.2.3.2.4 Based on healthcare industry standards, or published clinical guidelines or recommendations.

4.2.4 Establishment of action thresholds if needed and type of action should be taken.

4.3 Data must be collected by a trained personal.

4.4 Data analysis must be done by the laboratory quality management officer, acceptable tools are:
4.4.1 Control charts.
4.4.2 Check sheets.
4.4.3 Pareto chart.
4.4.4 Histogram.
4.4.5 Scatter diagram.

4.5 Indicator data presentation must be done in a way that demonstrate the data in it clearest form, wither it was in tables or graphs.

4.6 Acting on quality indicators must be the decision of the director of laboratory and blood bank manager, and it must be one of the following:
4.6.1 Deciding to continue monitoring, or stop monitoring
4.6.2 Identifying opportunities of improvement.
4.6.3 Implementing a remedial action.
4.6.4 Implementing a corrective action plan.
4.6.5 Performing a root cause analysis RCA.
4.6.6 Development of a quality improvement strategy.
4.6.7 Modifying the targets or action thresholds.
4.6.8 Reporting to hospital, medical, and or total quality management directors.

4.7 Quality indicator reports are prepared by laboratory quality management officer, and approved by the director of laboratory and blood bank, and it must include:
4.7.1 Data collected.
4.7.2 Time period
4.7.3 Method of data collection.
4.7.4 Interpretation of data.
4.7.5 Limitation of data.
4.7.6 Required action or investigation.

5. MATERIAL AND EQUIPMENT:

5.1 Quality indicator development form.
5.2 Data collection forms.
5.3 Quality indicator reports.

6. RESPONSIBILITIES:

6.1 Laboratory Director
6.2 Laboratory Quality Management Officer
6.3 Total Quality Management and Patient Safety Director

7. APPENDICES:

N/A

8. REFERENCES:

8.1 Evaluation of Quality Indicators in a Tertiary Care Hospital Rachna Agarwal, 1 Sujata Chaturvedi,2 Neelam Chhillar,1 Renu Goyal,3 Ishita Pant,2 and Chandra B. Tripathi4.

8.2 Development and use of quality indicators for process improvement and monitoring of laboratory quality; approved guideline, CLSI, QMS12A.

9. APPROVALS:

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