Department:	Quality Management And Patient Safety	
Document:	Departmental Policy and Procedure	
Title:	Data Collection And Analysis	
Applies To:	Clinical Auditors	
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HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

1. PURPOSE:

1.1 To provide numerous sources to pull out data that drives a higher level of insights, trends, and other vital issues that can be used to build an effective personalized treatment approach.

1.2 Data collection in healthcare can also encourage efficient communication between doctors and patients, and increases the overall quality of patient care.

2. DEFINITIONS:

2.1 **Data collection**- is defined as the ongoing systematic collection, analysis, and interpretation of health data necessary for designing, implementing, and evaluating public health prevention programs.

3. POLICY:

3.1 The goal of this is to highlight the important role of effective data management in improving performance of an organization's health care systems. This exemplifies how an organization's quality improvement (QI) team establishes a plan and methodology for gathering, analysing, interpreting, and acting on data for a specific performance measurement.

4. PROCEDURE:

4.1 Quality improvement (QI), managing data is an essential part of performance improvement.

4.2 It involves collecting, tracking, analysing, interpreting, and acting on an organization's data for specific measures, such as the clinical quality measures.

4.3 Measuring a health system's inputs, processes, and outcomes is a proactive, systematic approach to practice-level decisions for patient care and the delivery systems that support it. Data management also includes ongoing measurement and monitoring.

4.4 Managing Data for Performance Improvement: Managing Data for Performance Improvement module reviews four primary steps of data management:
 4.4.1 Collecting data.
 4.4.2 Tracking data.
 4.4.3 Analysing and interpreting data.
 4.4.4 Action on data.

4.5 An effective data collection plan includes the following details for each measure:
 4.5.1 Name of the measure.
 4.5.2 Denominator detail with inclusions and exclusions.
 4.5.3 Data source for the denominator and include any specific queries to be run or report parameters that must be entered.
 4.5.4 Numerator detail with inclusions and exclusions
 4.5.5 Data source for the numerator and include specific queries to be run, manual steps, or specific sampling parameters.

4.5.6   If different individuals are assigned, identify who collects each data element and calculates the measure.

      4.5.6.1   Include a calendar of measure-performance reporting,

      4.5.6.2   Team reviews performance data on the scheduled meeting day.

4.6   Performance measurement data is only as effective as the data collection process. QI team should assess the reliability and effectiveness of the process before finalizing the plan. QI conduct random chart audits of the collected data and reports to assess their accuracy. There are a number of chart audit forms available to QI teams that are measure specific.

4.7   Tracking Data:

    4.7.1   Calculate Each Measure Over Time

      4.7.1.1   When the performance is calculated, a QI team then decides how often to monitor it. As a general rule, a QI team that is actively making changes to systems of care monitors performance frequently.

      4.7.1.2   Share Progress with the Practice Team

      4.7.1.3   QI team makes changes in its systems of care, the performance measurement data reassures the team that changes are resulting in improvement.

      4.7.1.4   Improvements are added periodically, measuring performance over time is important.

      4.7.1.5   QI teams schedule some time on the monthly team meeting agenda to review the data and share their findings.

4.8   Data displays are effective tools for sharing information throughout the data management process.

4.9   Data that is displayed graphically or summarized in a concise format provides a quick view of the team's progress—from baseline to aim.

4.10   The commonly-used data display techniques.

    4.10.1   Run Charts

      4.10.1.1   Run charts show trends in data over time, are easy to interpret, and provide picture of how a process is performing. They can be annotated to indicate when a particular change is implemented, which may explain a marked improvement or decrease in performance.

    4.10.2   Control Charts

      4.10.2.1   Control charts show data over time; however, they provide limits on which observed variation can be detected as either random or expected. Control charts are used less frequently in performance improvement but are helpful for understanding if the variation in data is beyond mathematical expectations.

    4.10.3   Other Commonly Used Displays

      4.10.3.1   Additional graphing types, such as bar graphs or pie charts. A team's creativity for display design is unlimited if improvement efforts are visually displayed and easily interpreted.

    4.10.4   Dashboard

      4.10.4.1   Dashboard data displays, similar to the dashboard in an automobile, provide several performance indicators at a glance, and are more commonly used as organizations increase their number of measures.

      4.10.4.2   Dashboards are created to display various aspects of one quality improvement project or used to convey performance across the organization.

4.11   Analyzing and Interpreting Data: The next phase of data management involves two distinct albeit related processes:

    4.11.1   Analyzing data is the review of performance data to determine if it meets the desired quality level; it is used to define a performance plan.

    4.11.2   Interpreting data is the process of assigning meaning or determining the significance, implications, and conclusions of data collected; it is used to evaluate and improve activities, identify gaps, and plan for improvement.

4.12   Acting on the Data:

    4.12.1   The Plan-Do-Check-Act (PDCA) cycle is integral to rapid-cycle change methodology. In data management, Check is the analysis and interpretation phase, and when it is completed, an

organization can proceed to "A" or acting on the data. A team's analysis and interpretation of the data drives its subsequent actions on performance.

4.13 When Progress is Insufficient:

  4.13.1 Ensure Data Systems Are Reliable:

    4.13.1.1 If the team is using a registry-generated report for performance data, the first step is to validate the reliability of its data systems. A current, updated registry, timely data entry, and compliance with the data collection methodology avoid a less-than-expected performance.

  4.13.2 Re-evaluate Potential Causes of Underlying System Problems.

  4.13.3 Re-evaluate Changes Made for Improvement.

  4.13.4 Increase Number of Changes per Week.

  4.13.5 Remove Barriers.

4.14 When Progress is Sufficient: In evaluating next steps, a team may consider these options:

  4.14.1 Continue on the same path of Managing Data for Performance Improvement.

  4.14.2 Work on a different part of the system.

  4.14.3 Test changes in more situations.

  4.14.4 Spread the improvement.

5. MATERIAL AND EQUIPMENT:

5.1 Quality Improvement Tools

6. RESPONSIBILITIES:

6.1 Quality Improvement Team
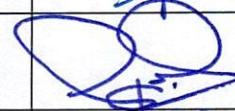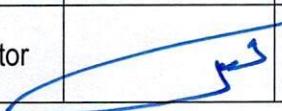
6.2 All Healthcare Providers

7. APPENDICES:

N/A

8. REFERENCES:

8.1 Bisha General hospital, Kingdom of Saudi Arabia.

9. APPROVALS:

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