

**Risk Assessment – Understand Areas of High Risk**

**Background:** Valuable information can be obtained by understanding a hospital's revenue and expenses. This information is useful in determining areas that have the most financial impact on a hospital organization.

**Data Analytics:**

- Using Excel, summarize the trial balance by company and category (asset, liability, etc.). Use this analysis to determine the companies that have the highest financial impact on the organization as a whole that should be included in the scope of potential companies to include in risk assessment discussions.
- Using Excel, drill down into the detail departmental revenue and expenses for the companies included in the risk assessment scope. This will help determine the departments that have the most financial impact and departments that should be included in risk assessment discussions.
- Using Excel, perform a current year to prior year comparison of the departmental revenue and expenses for the companies included in the risk assessment scope. This will highlight departments that had substantial changes in revenues or expenses which could indicate a risk. These departments should be included in risk assessment discussions to ascertain reasons for the variance from the prior year.

## Unleashing the Power of Data Analytics in Healthcare Auditing

### Audit Planning – Managed Care

**Scope and Objectives:** Review internal controls for the follow-up of payments received from managed care payors. Analyze inpatient and outpatient reimbursement data on Hospital patient accounts from April 1, 2013 through March 31, 2014.

**Background:** There is no automated process in place to determine compliance with managed care contract terms related to reimbursement. It is common for hospitals to have a contract modeling module in the patient accounting system. This module maintains the contract terms of each managed care contract. The system will usually be configured to account for contractual adjustments at the time of billing. Therefore, the system will produce an error report for all insurance payments received that do not match the contract terms in the contract modeling module.

Since there is no process to determine compliance with contract terms, data analytics will be used to determine the high risk payors to include in the review.

#### Sample Data Request:

1. A download containing the patient account detail records for all patient admissions and/or visits between **data start date to data end date**. The required fields are:

Demographic Data	HIM Data	Detail Patient Account Data
<ul style="list-style-type: none"> <li>■ Patient Account Number</li> <li>■ Medical Record Number</li> <li>■ Patient Name</li> <li>■ Patient Age or Date of Birth</li> <li>■ Admission Date</li> <li>■ Discharge Date</li> <li>■ Inpatient/Outpatient Indicator</li> <li>■ Gender (Male/Female)</li> <li>■ Patient Type</li> <li>■ Financial Class</li> <li>■ Primary Insurance Payor</li> <li>■ Hospital Service or Location Code (where service occurred)</li> <li>■ Admission Source Code (where patient presented to facility)</li> <li>■ Arrival Mode</li> <li>■ DRG</li> </ul>	<ul style="list-style-type: none"> <li>■ Patient Account Number</li> <li>■ Admitting and All Final ICD9 Diagnosis Codes</li> <li>■ Admitting and All Final ICD10 Diagnosis Codes</li> <li>■ ICD9 Procedure Code</li> <li>■ ICD10 Procedure Codes</li> <li>■ CPT Codes (as assigned by HIM coders)</li> <li>■ CPT Modifiers</li> </ul>	<ul style="list-style-type: none"> <li>■ Patient Account Number</li> <li>■ Service Code/Charge Code</li> <li>■ Transaction Amount (charges, professional fees, payments, adjustments, etc.)</li> <li>■ Revenue Codes</li> <li>■ CPT and HCPCS Codes (from Charge Description Master)</li> <li>■ CPT/HCPCS Modifier</li> <li>■ Charge Quantity</li> <li>■ Date of Service</li> <li>■ Department Number or GL Key</li> <li>■ Transaction Post Date</li> <li>■ Transaction Type</li> </ul>

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### Data Analytics:

- Conduct planning meetings with appropriate personnel.
- Request data, example noted above.
- Import data into data analytics tool (ACL).
- Validate the reasonable completeness and accuracy of the data.
- Analyze data to show:
  - Percent of payments by payor and by inpatient and outpatient,
  - Aging of payments by payor and by inpatient and outpatient, and
  - Percent of manual adjustments by payor and by inpatient and outpatient.
- Report out for determination of payors to include in audit scope.

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### **Audit Fieldwork – Terminated employees with Access to Meditech**

**Scope and Objectives:** Identify, through the use of Data Analytics, terminated employees with active access to Meditech.

**Background:** Management has not performed a system user access review since implementation of Meditech.

#### **Data Analytics:**

- Conduct planning meetings with appropriate personnel to determine data sources.
- Request employee master file with a field that indicates employment status.
- Request the Meditech user access file.
- Import data into data analytics tool (ACL).
- Validate the reasonable completeness and accuracy of the data.
- Analyze data to test for terminated employees with access to Meditech:
  - Extract out only terminated employees from the employee master file,
  - Perform a many to many join of the terminated employees file to the Meditech user access file based on Last Name, First Initial and Date of Birth, and
  - Extract out all matches for further research.

**Audit Fieldwork – Managed Care**

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**Data Analytics:**

- Conduct planning meetings with appropriate personnel.
- Request data, example noted above.
- Import data into data analytics tool (ACL).
- Validate the reasonable completeness and accuracy of the data.
- Analyze data to:
  - Recalculate expected reimbursement based on modeling of contract terms, and
  - Compare recalculated expected reimbursement to actual reimbursement to determine discrepancies.
- For “percent of charge” contracts, compare CDM pricing to fee schedules to identify CDM items with pricing less than fee schedule amounts - \$1.2M in lost revenue.
- Report out results to Management.

**Audit Fieldwork – Payroll Fraud**

**Scope and Objectives:** Using Data Analytics, Lawson payroll records were analyzed to determine the impact of a payroll fraud.

**Background:** Management identified an alleged payroll fraud. CHAN was asked to utilize data analytics to validate and quantify the extent of the alleged fraud.

**Data Analytics:**

- Conduct planning meetings with appropriate personnel.
- Request payroll register data to include bank account numbers and data with paid time off balances, accruals and deductions per pay period.
- Import data into data analytics tool (ACL).
- Validate the reasonable completeness and accuracy of the data.
- Analyze data to:
  - Identify different employees with the same bank account number ,
  - Identify changes or additions of bank accounts by employee,
  - Analyze paid time off payments to identify payments made to a different bank account,
  - Analyzed paid time off transaction history to identify instances when a manual adjustment was made and a paid time off cash out was paid in the same pay period, and
  - Quantify payments made to alleged fraudster's bank account - \$1.1M.
- Review with Management to determine appropriate action.

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### Audit Fieldwork – Drug Diversion

**Scope and Objectives:** Using Data Analytics, to identify potential drug diversion.

**Background:** Drug diversion is a high risk area in healthcare settings.

#### Data Analytics:

- Conduct planning meetings with appropriate personnel.
- Request drug dispenses, drug administrations and time clock data.
- Import data into data analytics tool (ACL).
- Validate the reasonable completeness and accuracy of the data.
- Analyze data to identify:
  - Drugs removed from drug dispensing machine by personnel who are not clocked in to the time accounting system,
  - Drugs removed from drug dispensing machine by personnel who are not assigned to the area,
  - Wastage patterns that might indicate a “buddy” arrangement between two employees,
  - Override transactions,
  - Higher than average medication dispensing or wastage,
  - Employees with a higher than average use of PRN medications,
  - Higher than average medication returns to the drug dispensing machine, and
  - Comparison of orders to dispensing to administration, including analysis of medications dispensed with no matching record of administration and medications administered with no matching record of dispensing.
- Report out findings to Management.

### Continuous Auditing - Medicare Three Day rule Compliance

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**Scope and Objectives:** Identify, through the use of Data Analytics, Medicare non-professional outpatient services provided to a patient within three days prior to an inpatient admission to assist the Clinic Group with Medicare Three Day Rule requirement compliance efforts. This analysis will be performed monthly.

**Background:** There is no automated process in place to determine compliance with the Medicare Three Day Rule requirement for the wholly owned and operated physician practices.

### Data Analytics:

- Conduct planning meetings with appropriate personnel to determine the clinics and hospitals in scope and needs of Management.
- Request appropriate data from the clinics and the hospital.
- Import data into data analytics tool (ACL).
- Validate the reasonable completeness and accuracy of the data.
- Analyze data to test for compliance with Medicare Three Day Rule requirement to include:
  - Extract Medicare patients from both clinic and hospital data sets,
  - Extract only Inpatients from hospital data,
  - Perform a many to many join of the Medicare inpatient hospital file to the Medicare clinic file on patient Last Name and First Initial,
  - Calculate the time between the clinic service date and the hospital admit date,
  - Extract out patients from the joined table whose date of birth is the same and whose clinic service date is 3 days or less from the hospital inpatient admit date,
  - Perform the same analysis using patient social security number in lieu of patient last name and first initial, and
  - These patients represent patients who had a clinic visit and were admitted as an inpatient within 3 days of the clinic visit. Average monthly number of patients identified is 8.