Midas+ DataVision

Get the Word Out!

Sharon Breining,
Senior Business Intelligence Analyst
Advocate Health Care

22nd Annual Midas+ User Symposium
Midas+ DataVision  *Get the Word Out!*
Midas+ DataVision Get the Word Out!

$4.7 Billion Annual Revenue
  • AA Rated

12 Acute Care Hospitals
  • 1 Children’s Hospital
  • 5 Level 1 Trauma Centers
  • 4 Major Teaching Hospitals
  • 4 Magnet Designations

Over 250 Sites of Care
  • Advocate Medical Group
  • Dreyer Medical Clinic
  • Occupational Health
  • Imaging Centers
  • Immediate Care Centers
  • Surgery Centers
  • Home Health/Hospice

Physician Membership
  • 1,200 Primary Care Physicians
  • 2,800 Specialist Physicians
  • 1,700 Advocate-employed Physicians
  • 9 Physician Hospital Organizations (PHO’s)

530,000 Capitated Lives
700,000 PPO Lives
530,000 Attributable Lives

Two ACOs
  • MSSP
  • Commercial

Employees – 31,743
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10 are Midas Hospitals

- 8 hospitals
  1 Midas server – since 2001

- 2 hospitals
  on separate Midas server (different HIS)

Designated Midas System Manager(s) at each hospital
1.5 Corporate Midas System Managers
  7 Hospitals - DataVision
  7 Hospitals – Statit

There are A LOT of Midas users at ADVOCATE &
we need to get the word out about DataVision!
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*Communicate, Communicate, Communicate!!*

**What?**

All the great **features and Tools** available in DataVision like:

- **DataVision 3M PPR Toolpack** *(Potentially Preventable Readmissions)*
  
  This is a valuable report that uses the 3M methodology for identifying potentially preventable readmissions, which can impact hospital reimbursement. By identifying those PPR cases hospitals can review clinical care management variation in their processes.

- **DataVision Provider Profile**
  
  This report provides feedback to a provider or can be used for reappointments. It includes a medical profile and a surgical profile and is categorized by Volume, Acuity, System-based Practice, Patient Care and Medical/Clinical Knowledge using DataVision Defined Indicators.
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- **DataVision Value Based Purchasing Reports**
  Value Based Purchasing reports provide an estimate of your hospital’s VBP core measure and patient satisfaction survey results using CMS scoring guidelines.
  *(this is a must have report)*

- **DataVision Risk Toolpack**
  If you are using the Midas Risk Module you will love this Toolpack! It’s a detailed report that stratifies your risk data for you. And, it includes three different sub-reports to select from for reviewing your risk event data.

- **DataVision Core Measure Accountability Report**
  This report gives you a composite score of your hospital’s performance based on the ORYX accountability measure initiative.
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**DataVision Core All Topic Summary Report**

The Core All Topic Summary report displays your hospital’s core measure rates of the last four quarters along with the 5th, 25th, 50th, 75th and 95th percentile values for all of the hospitals participating in the comparative database. This summary report is concise, easy to read and gives a comparison over time.

**DataVision APR-DRG Reports**

APR-DRG reports are based off of DRG (Diagnostic Related Groups). There are several facility specific reports as well as Provider specific reports.

- **facility-specific reports include:**
  - Ranking Profile
  - Service Line Profile
  - Lives/Days Saved Report
  - Comparative Trend Analysis
  - Sub-Class Detail Report

- **provider-specific reports include:**
  - Overall Provider Summary
  - Single APR-DRG Provider Comparison
  - Specialty Comparison Report
  - Provider APR-DRG Report

2013 Midas+ User Symposium
DataVision SmartReport

Definitely the coolest report ever ..... Because its such a time saver and soooo easy!

There are so many great features built into this report I can’t name them all.

SmartReport is categorized into three topics:
Performance, Safety and MS-DRG Coding Analysis.

Within each category are sub-sections that provide an array of individually linked reports specific to the measure of interest. You can graphically display your hospital’s data with a comparative trend chart or control chart and use the comparative parameters including: Region, Bed Size, Nursery Level, Teaching/Non-Teaching or CMI to compare like hospitals.

Top 5 measures are displayed within each category. Measures are prioritized based on resource intensity and/or volume. By default, the 5th and 95th percentiles are displayed.

Note: 8893 measures in DataVision and there are an additional 630 geometric cost indicators.
HAC Financial Predictor

The DataVision HAC Financial Predictor helps hospitals identify their potential financial impact with HAC (Hospital Acquired Condition) cases by estimating reimbursement for the lower-paying MS-DRGs.

MDC Case Mix Index Contribution Report

Another great report that displays your hospital’s Case Mix Index value for each product line for both the current and previous year. The report displays the negative or positive impact of each MDC – Medical Diagnostic Category. The report can be used to identify an increase or decrease of clinical populations from year to year.

All DataVision measures have a defined measure description that includes the numerator/denominator; and all inclusion and exclusion criteria. These measure definitions are an immensely valuable resource.
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Who? Midas System Managers

WHO Would Benefit:

- Care Managers
- Abstractors
- Quality
- Risk Management
- HIM
- Utilization Review
- Patient Safety
- Infection Control
- Decision Support
- Physicians
- Patient Relations
- Finance
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**How?** By sharing some of the great communication tools Midas already has available

Midas Solutions sends out monthly e-notifications on upcoming events and webinars; many feature DataVision!
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**How?** Check the TRAINING area of the Midas CLIENTS ONLY website!

Users can get **Hands-on**, **Web-based**, or **Self-paced** DataVision Training and learn about all the capabilities of DataVision.
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**How?** Don’t forget the quarterly DataVision Release NOTES!

DataVision Release Notes address ALL Quarterly enhancements to both Server and Web applications *(also available in a webinar)*
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How? Quick “How To” Guide on DataVision on the Midas Clients Only Website

DataVision QuickStart Guides!

Provides Midas users with step-by-step instructions on using DataVision Tools
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How?

A Newsletter

“Advocate Healthcare” presents

Midas+ News You Can Use
Midas+ DataVision  Get the Word Out!

Midas News You Can Use

a one-page newsletter sent out to Advocate Midas users each quarter
DataVision’s Accountability Measures

Beginning January 1, 2012 the Joint Commission (TJC) introduced a new accountability standard (189.2.01) which requires hospitals to achieve and maintain a composite score of at least 85% for all designated Accountability Measures for their currently reported Core Measure Topics.

Midas has added NEW measures to the DataVision web application to assist hospitals in measuring their performance for these measures.

DataVision’s APR-DRG Lives/Days Saved

The APR-DRG Lives/Days Saved report in DataVision is a relatively new report. It became available at the beginning of 2011. The report displays a ranked list of all APR-DRG cases with mortality and average length of stay (ALOS) for different percentiles of performance. It displays two tabs on the report “Lives Saved” and “Days Saved.” By default, the report displays data for the latest rolling 12-month period of harvested data. You can use this report to see how many potential patient days or lives could be saved at your hospital.

DataVision’s 3M PPR Report (Potentially Preventable Readmissions)

Recently added to the DataVision Web Application, this is a new addition to Hospital APR-DRG Ranking and Hospital APR-DRG Service Profile reports. This new report contains a comparison of observed and expected readmission rates based on the 3M APR-DRG methodology. The 3M APR-DRG methodology categorizes each potentially preventable readmission. A readmission that is clinically related to a previous admission is considered a PPR if it occurs within the specified readmission time interval. To be clinically related, the readmission must be reasonable related to the care given during or immediately following a previous admission and not due to unrelated events. The term readmission refers to the initial admission and all clinically related PPRs. Many states and payers are requiring these readmission rates and complication rate reporting. DataVision’s APR-DRG Hospital Ranking Profile displays the expected & observed readmissions along with expected and observed LOS and readmitted and observed mortality. This new report is available on the DataVision Web Application and will be present on the APR-DRG Lives/Days Saved and APR-DRG Provider Reports with observed & expected readmissions.

AND, coming in August is a new server-based PPR Standard Report with built-in services to display encounter-level details of readmission chain (clinical associated admissions). This will be available to all DataVision clients regardless of their license status with 3M APR-DRG software.

“Expected 30-day PPR” (Figure 2) represents the number of readmissions “expected” observed among the patients of each group. 30-day PPR OE (observed / expected) ratio less than 1 indicates the hospital performed better than participating hospitals in the CDR.”
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**HOW?**

**Advocate’s –**

*Quarterly Midas System Manager Meeting*

- Review of Quarterly DataVision Release Notes
- Demo new DataVision Server/Web Reports
- Review of Upcoming DataVision/Midas Webinars

How many of you are **GOLD TRAINING** members?
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In Summary: Communicate DataVision to your users!

- Easy to Use / Easy to Access
- Demo the Tools for your users
- Help them become “educated” on using DataVision through monthly webinars
- Keep them informed on “what’s new” & what’s been around for awhile
Thank you for attending.

Questions?

Sharon Breining
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Advocate Health Care

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DataVision in the ‘Real World’

LOS and Readmission data mining discoveries of a real world DataVision client

Lisa Sylvestri
Midas+ System Manager
AnMed Health

22nd Annual Midas+ User Symposium
AnMed Health, Anderson, SC

578 Bed Acute Care System
- 461 AnMed Health Medical Center
- 72 AnMed Health Women’s and Children’s Hospital
- 45 AnMed Health Rehabilitation Hospital

24,054 Inpatient admissions
205,400 Outpatient procedures
107,818 ED visits
- 400 Admitting physicians
- 2,800 Employees
Our Mission

to passionately blend the art of caring with the science of medicine to optimize the health of our patients, staff and community.

Our Vision

to be recognized and celebrated as the gold standard for healthcare quality and community health improvement.
Midas at AnMed Health

- Client since 2003
- Systems include:
  - Care Management with CERME/Interqual
  - Seeker
  - DataVision
- Over 600 authenticated users
- 1,000+ RDE users
- Interfaces include: Lab, Pharmacy, Surgery, Surgery Schedule, Financial, CPT, ADT/DAB, GWTG-HF, and many file loads.
My Role

• Midas Systems Manager since 2003
• Direct report to UM Department Director
• Responsible for Midas usage throughout organization
• Full service Midas support including all organization implementation, interface development, reporting, problem support, analytics, process improvement, securities, etc.
• Support strategic measures, goals and reporting using Midas CM and DataVision

“FMC” Credentials (Fabulous Midas Consultant)
DataVision at AnMed Health

- **Source of real data, real time!**
  - *Effecting change requires fresh data to measure and manage processes*

- Access to DataVision somewhat tightly held

- A few ‘data savvy’ staff have direct access
  - *Case Managers use for population specific metrics and toolpacks*

- NOT a Midas Core Measure facility

- Midas System Manager and Data Analyst use **daily** as a ‘go to’ to satisfy data requests timely and efficiently
Problem or Opportunity?

• Overall readmissions and LOS performance off target
• LOS continues trending away from target
• Volumes continue to increase
• Both are a CHS system strategic goal
  • Monthly evaluation of performance against 30+ other system hospitals
• Medicare reimbursement impacted
• 2013 calendar year = new organizational goals!
“Lisa,
Can you tell us where our biggest opportunities are currently for readmissions and LOS including DRG, maybe severity adjusted and perhaps with some benchmark/comparative data? And several years of performance trends too?”
Where to begin?

DataVision Server App/Navigator?

- Provides you with data as fresh as yesterday!
- Data is easily exported to Excel for further manipulation
- Provides quick facility-level reports for ALOS/Readmissions

DataVision Web App?

- Provides APR-DRG specific data for a ‘severity adjusted’ approach
- Comparative database information available with configurable peer groups for benchmarking
Server App: Quick & Easy!

- Facility Profile
  - Case Mix Index
  - ICD-9 Product Line Profile - Inpatients
  - ICD-9 Product Line Profile - Observation/Short Stay Patients
  - MDC Product Line Profile
  - MDC Case Mix Index Contribution

- Length of Stay
  - Inpatients - Arithmetic Mean Length of Stay
  - Inpatients - Geometric Mean Length of Stay
  - Acute Care - Arithmetic Mean Length of Stay
  - Acute Care - Geometric Mean Length of Stay
  - Acute Care - Arithmetic Mean Length of Stay, Age over 64
  - Acute Care - Geometric Mean Length of Stay, Age over 64

- Major Co-Morbidity

- Emergency Department

- Readmissions
  - Inpatients - % Readmit to Acute Care within 30 Days
  - Inpatients - % Readmit to Acute Care within 14 Days
  - Inpatients - % Readmit to Acute Care within 7 Days
  - Acute Care - % Readmit within 30 Days
  - Acute Care - % Readmit within 14 Days
  - Acute Care - % Readmit within 7 Days
  - Acute Care - % Readmit within 30 Days, Age over 64
  - Acute Care - % Readmit within 14 Days, Age over 64
  - Acute Care - % Readmit within 7 Days, Age over 64
  - Acute Care - % Readmit within 30 Days, Age under 18
  - Acute Care - % Readmit within 14 Days, Age under 18
  - Acute Care - % Readmit within 7 Days, Age under 18
  - Inpatients - % Readmit within 30 Days to Observation/Short Stay
  - Inpatients - % Readmit within 30 Days to ED
Web App.....let’s go there...

- Same Facility folder
- Gives comparative data to assess performance against similar facilities
Population Performance

Hospital APR DRG Ranking Profile

>Web app>APR DRG Reports>Hospital APR DRG Reports

Provides 3 valuable measures with O/E ratios for each:

1. Mortality
2. ALOS
3. 30 day PPR

Ratio is ‘at a glance’ performance gauge
Renal/UTI Population

After meeting with multi-disciplinary team, the group requested more info on the Renal/UTI population.

Some thoughts to investigate:
• Centrally located on one nursing unit?
• Target Nephrologists?
• DC Disposition of index admissions?
• Review MS-DRG and APR-DRG reports
Utilize the 3-D Approach:

DataVision Data Dig!
Various profiles provide lots of information with a few mouse clicks!

Use specific indicators to drill down into data or create a custom query and apply toolpacks.

MS DRGs: 682, 683, 684

MS DRGs: 689, 690
Server App: MS-DRG Profile

- Pre-built! Fast, easy access
- Standardized performance metrics
- Pairs/triplets defined

Profile: Renal Failure - MS-DRG Care Management Profile

<table>
<thead>
<tr>
<th>Facility: All Facilities</th>
<th>682</th>
<th>683</th>
<th>684</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renal Failure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency per 1000 ACA MS-DRG 682</td>
<td>10.77</td>
<td>18.81</td>
<td>2.17</td>
</tr>
<tr>
<td>Geometric Mean Length of Stay MS-DRG 682</td>
<td>6.18</td>
<td>4.24</td>
<td>2.87</td>
</tr>
<tr>
<td>Average Length of Stay MS-DRG 682</td>
<td>7.71</td>
<td>5.11</td>
<td>3.09</td>
</tr>
<tr>
<td>% Not Discharged Home MS-DRG 682</td>
<td>44.25</td>
<td>27.30</td>
<td>25.71</td>
</tr>
<tr>
<td>% Readmissions Within 14 Days MS-DRG 682</td>
<td>12.64</td>
<td>11.51</td>
<td>0.00</td>
</tr>
<tr>
<td>% Readmissions Within 30 Days MS-DRG 682</td>
<td>20.12</td>
<td>18.75</td>
<td>11.43</td>
</tr>
<tr>
<td>% Encounters with LOS 1-2 Days MS-DRG 682</td>
<td>8.62</td>
<td>17.76</td>
<td>42.86</td>
</tr>
<tr>
<td>Average Charges MS-DRG 682</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Costs MS-DRG 682</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality Rate MS-DRG 682</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Edited in Excel to get side-by-side DRG comparison
Basic Report Toolpack

- Created custom indicator to include all desired DRGs
- Applied ‘User Defined’ option for Report Toolpack
- Modified Provider Util tab to filter by Attending Specialty
- Most patients attended by Internal Medicine/Hospitalists not Nephrologists
- Toolpack output includes DC Disposition summary
- Small % of patients going Home w/HH compared to Home

<table>
<thead>
<tr>
<th>Discharge Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator: C-DRG 682,683,684,689,690 Renal/Kidney (Is:cas, segmt)</td>
</tr>
<tr>
<td>Start Month: 1/2012 End Month: 12/2012</td>
</tr>
<tr>
<td>All Facilities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count of Account No.</th>
<th>Facility DC Disposition</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISCHARGE TO HOME</td>
<td>511</td>
<td>47.0% Home</td>
</tr>
<tr>
<td>SKILLED NURSING FACI</td>
<td>216</td>
<td></td>
</tr>
<tr>
<td>HOME HEALTH SERVIE</td>
<td>143</td>
<td>13.1% HH</td>
</tr>
<tr>
<td>DISC/TRANS REHAB FAC</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>INTERMEDIATE CARE FA</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>HOSPICE-MEDICAL FACI</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>HOSPICE-HOME</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>EXP &gt; 48 W/O AUTP</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>DC/Trans to Psychiatric Hosp</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AMA</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EXP &lt; 48 W/O AUTP</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SHORT TERM GEN HOSP</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TRANSFER W/CODE</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DISC/TRAN LONGTERM FAC</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EXP &gt; 48 W/AUTP</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EXPIRED</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>1088</td>
<td></td>
</tr>
</tbody>
</table>

- MS DRG 683 and 690
- Highest volume, 68% of total cases

<table>
<thead>
<tr>
<th>Top DRG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator: C-DRG 682,683,684,689,690 Renal/Kidney (Is:cas, segmt)</td>
</tr>
<tr>
<td>Start Month: 1/2012 End Month: 12/2012</td>
</tr>
<tr>
<td>All Facilities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count of DRG</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRG</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>682</td>
</tr>
<tr>
<td>683</td>
</tr>
<tr>
<td>684</td>
</tr>
<tr>
<td>689</td>
</tr>
<tr>
<td>690</td>
</tr>
<tr>
<td>Grand Total</td>
</tr>
</tbody>
</table>
Customizing pivot tables....

Drag the field you want to filter with to the Report Filter field in the pivot table field list.

1. Use drop down to “Select Multiple.” Checkmark desired choices.

2. Use drop down to “Select Multiple.” Checkmark desired choices.

3. Use drop down to “Select Multiple.” Checkmark desired choices.

-Indicator: C-DRG 682,683,684 Renal Failure ONLY
-Start Month: 1/2012  End Month: 12/2012

<table>
<thead>
<tr>
<th>Discharge Status</th>
<th>Total</th>
<th>CHA % Home</th>
<th>RH % HH</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISCHARGE TO HOME</td>
<td>273</td>
<td>53.2%</td>
<td></td>
</tr>
<tr>
<td>HOME HEALTH SERVICE</td>
<td>66</td>
<td>12.9%</td>
<td></td>
</tr>
<tr>
<td>SKILLED NURSING FACI</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISC/TRANS REHAB FACI</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOSPICE-MEDICAL FACI</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERMEDIATE CARE FA</td>
<td>22</td>
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<td></td>
</tr>
<tr>
<td>EXP &gt; 48 W/O AUTP</td>
<td>8</td>
<td></td>
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</tr>
<tr>
<td>Grand Total</td>
<td>513</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Readmission Toolpack

- Most patients were not being discharged from renal/dialysis nursing unit
- Readmission visit LOS #2 greater than LOS #1 in most cases
- Readmission “days between” averages 12.9
Remove UTI/Kidney DRGs....

Looking at Renal Failure patients ONLY:

- Renal failure patients not centrally located on 4C
- 68 of 96 being discharged from other nursing units (70%)
- Readmit visit LOS greater than Index visit
Back to DataVision Web App....

more data digging
APR DRG 460 Renal Failure

Group wanted further investigation into the APR DRG 460 and 463 findings.

Higher volume = higher impact?

Observed ALOS 6.02 almost 1 day higher than Expected 5.21

LOS in lower severity groups

Use APR DRG Subclass Detail reports in Web App.
3M PPR for Readmissions: APR DRG 460 Renal Failure

Unique methodology categorizes readmission visits to provide true “clinically-related readmission” chains.

- Observed PPR – 13.92%
- CDB Norm - 11.09%
- Expected - 11.18%

2.74% reduction to meet “expected” rate

Volume in the Subclass 1 – improve physician documentation?

Highest volume in Subclass 3 – accurate physician documentation?

Subclass 4 actually performing better than CDB group
This “3D” Approach included:

- Custom profile with Renal/Kidney MS-DRGs and APR DRG volumes
- Renal/Kidney MS-DRGs Report Toolpack
- Renal/Kidney MS-DRGs Readmit Toolpack
- 3M PPR Toolpack by Service Line Nephrology
- APR DRG 460,463 Reports & Report Toolpack

Thanks to DataVision!
Outcome of Efforts

Action Plan for Dialysis Patients to include:

- Organize Renal Dialysis Team
- Identify dialysis patients for tracking, education and post-DC follow-up
- Instruction sheet for perma-cath care and possible emergency dressing kit for home
- Improve communication for acute dialysis, OP dialysis center, and IP unit from admission to DC follow-up
- Patient information packet to include access care, dialysis information, diabetes care, dietary information, contact numbers, resources, etc.
Better than sliced bread?!

- EXCELLENT go-to reporting tool for efficiency in common clinical reporting and analytical needs
- Indicators can be used in custom profiles
- Toolpacks = data power tools…worth their weight in gold!
- Comprehensive ‘base reports’: export to Excel for data manipulation and digging
- Comparative reporting: 600+ participating organizations
- Most metrics available as Provider specific reports
- Cohesive use with Statit
- 3M Integration and PPR/PPC Methodologies
Thank you for attending!

Questions?

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Midas+ System Manager
AnMed Health
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Midas+ DataVision
Case Studies at Loma Linda University Medical Center

Waheeda Baqai, MPH, CPH
Director Clinical Decision Support
Loma Linda University Medical Center

22nd Annual Midas+ User Symposium
LOMA LINDA UNIVERSITY
MEDICAL CENTER

- Adult and Pediatric Level I Trauma Center
- Four campuses
- Regional California Children’s Services Hospital
- Midas+ client since 2000
  - Care Management
  - DataVision
  - Comply
  - Statit

Service to >26% of California, Over 4 million people
DataVision = Improved Documentation

• DV has been an integral part of our clinical quality outcome and documentation improvement efforts at LLUMC
• Clinical Documentation Improvement (CDI) Program started in 2008
• Driven by quality, not finance
Outcome Measures? DV has ‘em!

Facility Profile
- Case Mix Index
- Length of Stay
- Readmissions
- Mortality
...so many different ways to look at the same thing!

- Inpatient
- Acute
- Medicare
- ...even IHI!
LLUMC Mortality by Calendar Year

Actual Expected


CMS MedPar: Q4 2003 to Q3 2008
Mortality = 😞

- Physicians and Administrators not pleased by public data
- Care team providers convinced data was wrong
- Quality team believed it was an issue of accuracy and documentation
DV & CDI

• As part of LLUMC’s robust CDI program, we extensively used DV Indicators to build support and create a sense of urgency

• Clinical data was much more valuable than financial data

• Risk-adjusted DV data through the web application was extraordinarily helpful in demonstrating why documentation matters
### DV Web Application

#### APR DRG Subclass Detail

<table>
<thead>
<tr>
<th>APR DRG:</th>
<th>Electrolyte disorders except hypovolemia related...</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Reporting interval:</th>
<th>Month stating October 2007 ending September 2008</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Inpatient population:</th>
<th>All</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Remove palliative care population:</th>
<th>This setting does not affect Potentially Preventable Readmission (PPR) data.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Filter by age:</th>
<th>Patients greater than 64 years</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Category:</th>
<th><em>Bedsize 400+</em></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Readmission interval:</th>
<th>30 Days</th>
</tr>
</thead>
</table>

[Refresh Report]
### APR DRG 425 Electrolyte disorders except hypovolemia related

#### Mortality Rate by Mortality Risk

<table>
<thead>
<tr>
<th>Mortality Subclass</th>
<th>Comparative Database Norm</th>
<th>Site</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Distribution N=6769 Mortality Rate</td>
<td>Distribution N=61 Mortality Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>27% 0.17%</td>
<td>12 20% 0.00% 1st-97th</td>
<td>no significance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>38% 0.55%</td>
<td>23 38% 0.00% 1st-87th</td>
<td>no significance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>32% 2.64%</td>
<td>21 34% 0.00% 1st-60th</td>
<td>no significance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4% 24.71%</td>
<td>5 3% 40.00% 73rd</td>
<td>no significance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CDB Mean Mortality Rate = 2.11%**

**Observed Mortality Rate = 3.26%**

**Expected Mortality Rate = 3.24%**
APR-DRG 425 Electrolyte disorders except hypovolemia related- Mortality >64

FY2007
- Observed: 4.00%
- Expected: 2.79%
- Sample Size: 50

FY2008
- Observed: 1.82%
- Expected: 2.58%
- Sample Size: 55

FY2009
- Observed: 0.00%
- Expected: 2.82%
- Sample Size: 26

Sample Size N=50 N=55 N=26

- CDB Average
### APR DRG 425 Electrolyte disorders except hypovolemia related ALOS by Severity

<table>
<thead>
<tr>
<th>Severity Subclass</th>
<th>Distribution N=6769</th>
<th>ALOS</th>
<th>Distribution N=61</th>
<th>ALOS</th>
<th>Comparative Percentile of Performance</th>
<th>Test of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11%</td>
<td>3.6</td>
<td>3</td>
<td>5%</td>
<td>2.7</td>
<td>70th</td>
</tr>
<tr>
<td>2</td>
<td>48%</td>
<td>3.2</td>
<td>33</td>
<td>54%</td>
<td>2.9</td>
<td>40th</td>
</tr>
<tr>
<td>3</td>
<td>37%</td>
<td>4.8</td>
<td>19</td>
<td>31%</td>
<td>6.7</td>
<td>92nd</td>
</tr>
<tr>
<td>4</td>
<td>5%</td>
<td>9.3</td>
<td>9</td>
<td>10%</td>
<td>0.7</td>
<td>27th</td>
</tr>
</tbody>
</table>

- **CDB Mean ALOS = 4.12**
- **Observed ALOS = 4.43**
- **Expected ALOS = 4.32**

CDB Avg. Relative Weighted Severity = 0.70
Site Avg. Relative Weighted Severity = 0.78

* indicates sample size too small
APR-DRG 425 Electrolyte disorders except hypovolemia related - ALOS >64

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>FY2007</th>
<th>FY2008</th>
<th>FY2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=50</td>
<td></td>
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<td></td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>N=26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Observed
- Expected
- CDB Average

2013 Midas+ User Symposium
### APR DRG 425 Electrolyte Disorders except Hypovolemia Related ALOS by Severity

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APR-DRG 425 Electrolyte disorders except hypovolemia related- Severity >64

<table>
<thead>
<tr>
<th>Year</th>
<th>Observed</th>
<th>CDB Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2007</td>
<td>0.8</td>
<td>0.78</td>
</tr>
<tr>
<td>FY2008</td>
<td>0.87</td>
<td>0.6</td>
</tr>
<tr>
<td>FY2009</td>
<td>1.04</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Sample Size
- FY2007: N=50
- FY2008: N=55
- FY2009: N=26
Medicare Mortality

- Expected
- Observed

2008: 2.83, 3.48
2009: 3.37, 4.06
2010: 3.6, 4.68
2011: 3.09, 4.83
2012: 3.86, 5.08

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Medicare Case Mix Index
On to the next problem: Complications of Care

In January 2012, a patient safety issue was publicly reported by the U.S. Department of Health and Human Services on their hospital comparison website (http://hospitalcompare.hhs.gov). According to the reported data, LLUMC is “worse than [the] US national rate” for iatrogenic pneumothorax. This type of information affects hospital reimbursement and affects public opinion regarding the quality of care delivered.
Safety > Patient Safety

> Coded Complications of Care

Publicly Reported Information Available for Analysis in DataVision

- AHRQ Patient Safety Indicators - Medicare ACA
- EXP 01 Complications of Anesthesia - Per 1000 ACA
- PSI 02 Death in Low-mortality DRGs - Per 1000 Medicare
- PSI 03 Pressure Ulcer - Per 1000 Medicare
- PSI 04 Death in Surgical IP w/5er Treatable Comp - Per 1000 Medicare
- PSI 05 Foreign Body Left During Procedure - Per 1000 Medicare
- PSI 06 Iatrogenic Pneumothorax - Per 1000 Medicare
- PSI 07 Central Venous Cath Bloodstream Infection - Per 1000 Medicare
- PSI 08 Postoperative Hip Fracture - Per 1000 Medicare
- PSI 09 Postoperative Hemorrhage or Hematoma - Per 1000 Medicare
- PSI 10 Postop Physiologic/Metabolic Derangement - Per 1000 Medicare
- PSI 11 Postoperative Respiratory Failure - Per 1000 Medicare
- PSI 12 Postoperative Pulmonary Embolism or DVT - Per 1000 Medicare
- PSI 13 Postoperative Sepsis - Per 1000 Medicare
- PSI 14 Postoperative Wound Dehiscence - Per 1000 Medicare
- PSI 15 Accidental Puncture or Laceration - Per 1000 Medicare
- PSI 16 Transfusion Reaction - Per 1000 Medicare
- PSI 90 Patient Safety Indicators Composite, Medicare
- PSI 90 Patient Safety Indicators Composite, Medicare - Volume
Cue the questions . . .

<table>
<thead>
<tr>
<th>Device/Implant Complications, Nervous System - Per 1000 ACA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device/Implant Complications, Orthopedic Device - Per 1000 ACA</td>
</tr>
<tr>
<td>Device/Implant Complications, Other/NEC Device - Per 1000 ACA</td>
</tr>
<tr>
<td>Device/Implant Complications, Peritoneal Dialysis Cath - Per 1000 ACA</td>
</tr>
<tr>
<td>Device/Implant Complications, Unspecified Device - Per 1000 ACA</td>
</tr>
<tr>
<td>Device/Implant Complications, Vascular Device - Per 1000 ACA</td>
</tr>
<tr>
<td>Digestive System Complications - Per 1000 ACA</td>
</tr>
<tr>
<td>Disruptions of Operative Wound - Per 1000 ACA</td>
</tr>
<tr>
<td>DVT/PE, Orthopedic - Per 1000 Inpatients w/ Total Knee/ Hip Replacement</td>
</tr>
<tr>
<td>Iatrogenic Pneumothorax - Per 1000 ACA</td>
</tr>
<tr>
<td>Iatrogenic Pulmonary Embolus - Per 1000 ACA</td>
</tr>
<tr>
<td>Infection from Central Venous Cath - Per 1000 Inpatients w/ CV Cath</td>
</tr>
<tr>
<td>Intraoperative Injuries - Per 1000 ACA</td>
</tr>
<tr>
<td>Intraoperative Injuries - Per 1000 ACA with Surgical Procedure</td>
</tr>
<tr>
<td>Nervous System Complications - Per 1000 ACA</td>
</tr>
<tr>
<td>Other Complications - Per 1000 ACA</td>
</tr>
<tr>
<td>Peripheral Vascular Complications - Per 1000 ACA</td>
</tr>
<tr>
<td>Postoperative Hematoma - Per 1000 ACA</td>
</tr>
<tr>
<td>Postoperative Hematoma - Per 1000 ACA with Surgical Procedure</td>
</tr>
<tr>
<td>Postoperative Hemorrhage - Per 1000 ACA</td>
</tr>
<tr>
<td>Postoperative Hemorrhage - Per 1000 ACA with Surgical Procedure</td>
</tr>
<tr>
<td>Postoperative Infections - Per 1000 ACA</td>
</tr>
<tr>
<td>Postoperative Pulmonary Edema - Per 1000 ACA</td>
</tr>
<tr>
<td>Postoperative Pulmonary Edema - Per 1000 ACA with Surgical Procedure</td>
</tr>
<tr>
<td>Postoperative Shock - Per 1000 ACA</td>
</tr>
<tr>
<td>Postoperative Shock - Per 1000 ACA with Surgical Procedure</td>
</tr>
<tr>
<td>Reattached Extremity or Body Part Complications - Per 1000 ACA</td>
</tr>
<tr>
<td>Respiratory Complications - Per 1000 ACA</td>
</tr>
<tr>
<td>Retained Foreign Body - Per 1000 ACA</td>
</tr>
<tr>
<td>Transfusion Reactions, All Types - Per 1000 ACA</td>
</tr>
<tr>
<td>Transplanted Organ Complications - Per 1000 ACA</td>
</tr>
<tr>
<td>Urinary Complications - Per 1000 ACA</td>
</tr>
</tbody>
</table>

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What is . . . ? Who is included?

### CDBR:815 Intraoperative Injuries – Per 1000 Acute Care Admits

<table>
<thead>
<tr>
<th><strong>Measure description</strong></th>
<th>Frequency of encounters with a discharge diagnosis of intraoperative injury per 1,000 acute care inpatient encounters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of measure</strong></td>
<td>Proportion</td>
</tr>
<tr>
<td><strong>Payer type</strong></td>
<td>All payer</td>
</tr>
<tr>
<td><strong>Available in</strong></td>
<td>DataVision</td>
</tr>
</tbody>
</table>

#### Numerator statement
Count of encounters in the denominator population with a discharge diagnosis of intraoperative injury

#### Inclusion criteria
- Discharge diagnosis:
  - ICD-9 998.2: Accidental puncture or laceration during a procedure

#### Denominator statement
Count of discharged acute care inpatient encounters

#### Inclusion criteria
- Encounter Type:Type of I (inpatient)

#### Exclusion criteria
- SERVICES (#2), LOCATIONS (#5), or ENCOUNTER TYPE (#505) Dictionary entry equivalent to rehabilitation, behavioral health, skilled nursing, hospice, or other non–acute care
- Inpatient delivery encounters with ICD-9 V codes V27.0–V27.9 (refer to Appendix A)
- Inpatient newborn encounters with ICD-9 V codes V30.00–V39.01 (refer to Appendix A)

The Comparative Data Base Dictionary Map function matches hospital terms with equivalent standard terms.

#### Provider attribution
For this measure, the provider attribution depends on the site parameter CDB-PHYSICIAN TYPE. This parameter specifies the general setting to be used as the provider attribution for most Midas+ measures—either Admitting Provider (default) or Attending Provider.
How Do We Compare?
Change in coding and review process

Using DV Indicators, discussions between stakeholders enabled us to identify opportunities to improve accuracy of coded complications.
Better processes

**Current**

- Patient discharged
  - Chart coded
  - Bill dropped

**Proposed**

- Patient Discharged
  - Chart Coded
  - Review of specific code triggers
  - Queries to confirm codes
  - Bill dropped
What the future holds…

• With the addition of a new separately licensed facility, multiple hospital data comparison possible within DV for sharing of best practices

• Additional severity-adjusted data as part of outcomes tracking
  • Readmissions
  • Length of Stay
  • Mortality

• Look forward to Midas+ adding more useful DV Indicators
Thank you for attending.

Questions?

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Loma Linda University Medical Center

wbaqai@llu.edu