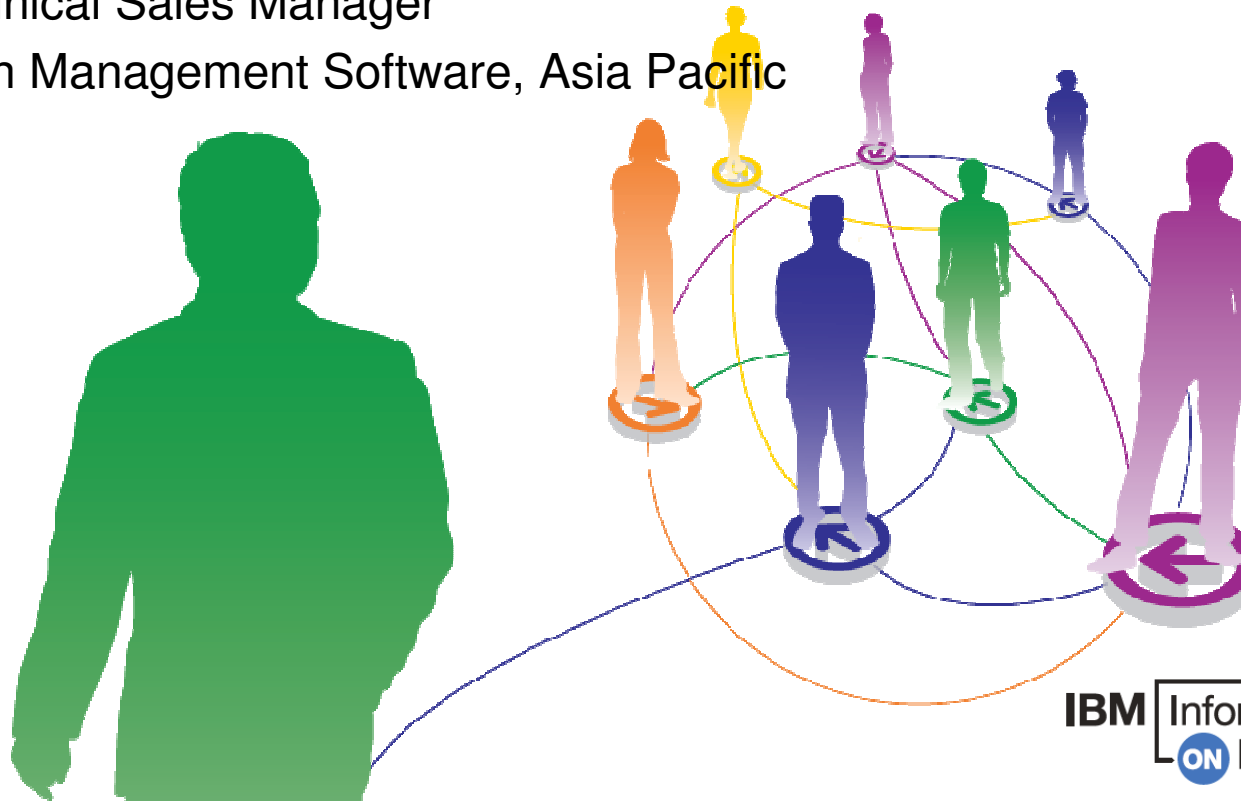


New Intelligence from Content: Content Analytics for BI and Assessment

Presenter: Jason Ho
ECM Technical Sales Manager
Information Management Software, Asia Pacific



IBM Information
ON Demand 2010



INFORMATION-LED
TRANSFORMATION



LEAD
THE WAY



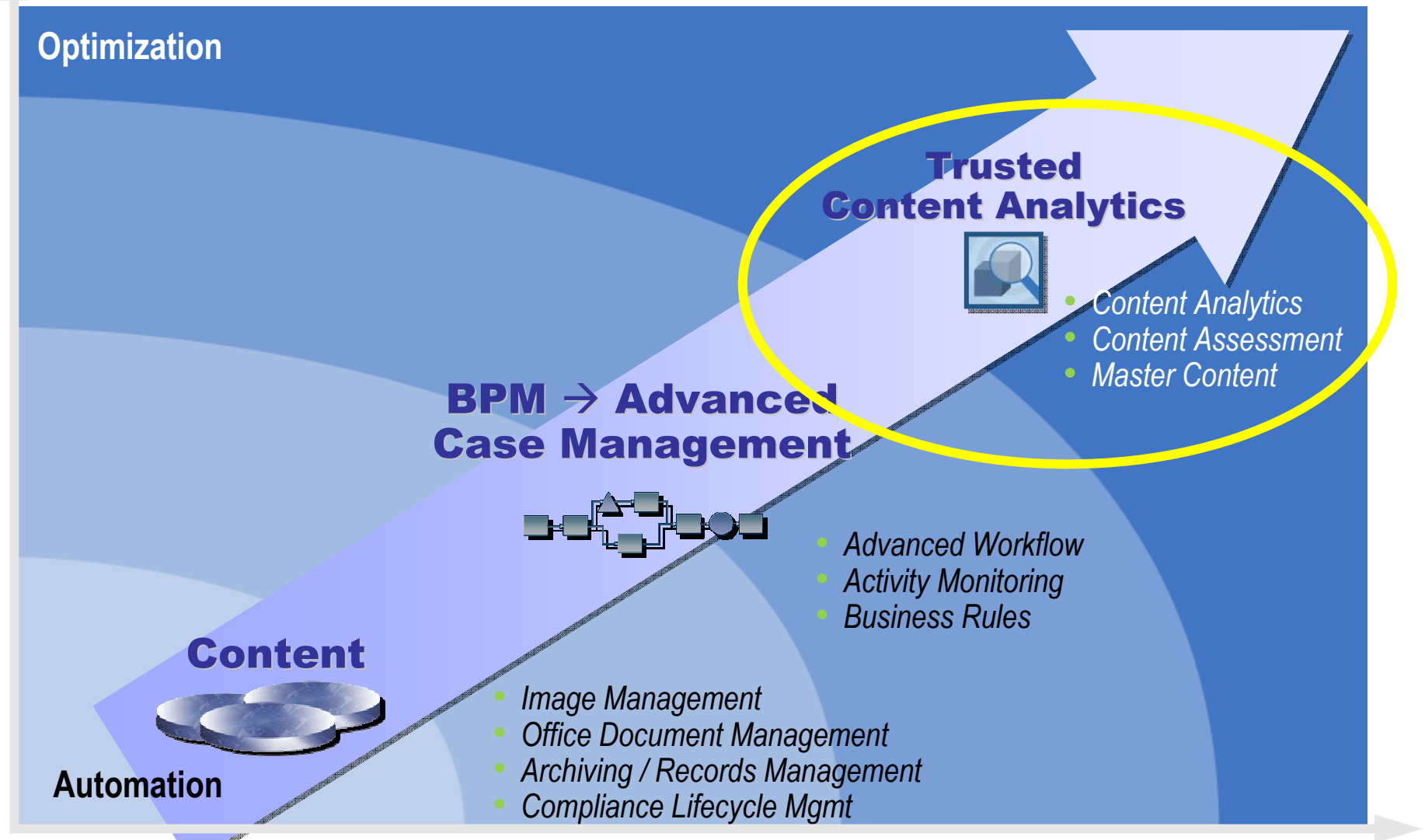
IBM

January 21 - SINGAPORE • January 26 - MALAYSIA • January 28 - THAILAND

Analytics is Driving the Evolution of ECM

ECM Becomes a Key Enabler for Information-Led Transformation

Smarter Business
Outcomes



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What our customers tell us...

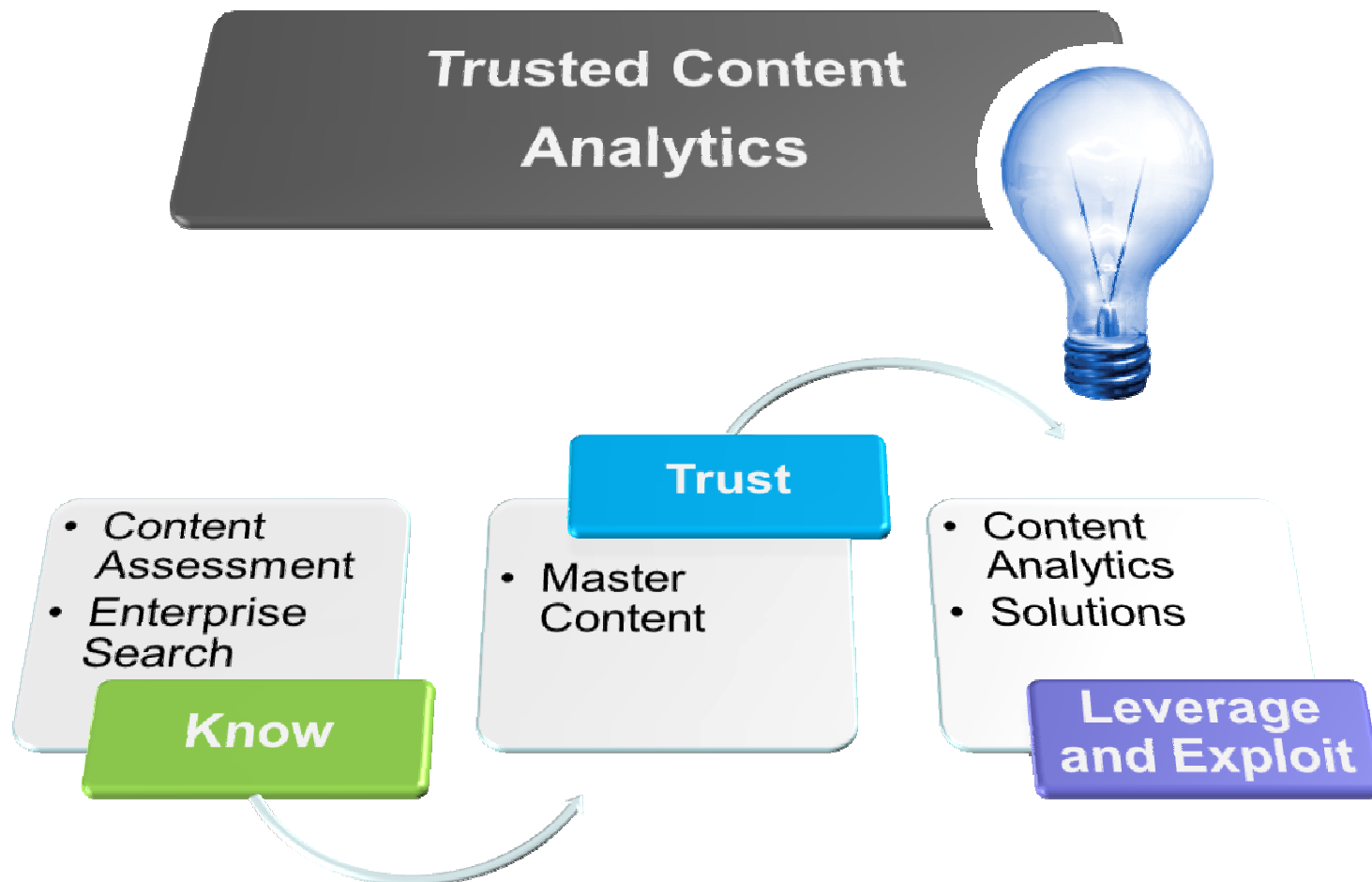
1. **Keep too much** information and **spend too much** storing content because there's too much to sift through
2. Can't **pinpoint the right content** when we need it because its unfindable or hidden away in a departmental silo
3. Can't **trust the content** we do find about our customers because the lifecycle is uncontrolled
4. Need to deliver **better customer service**, for less because those with the best service are rising above the rest in highly competitive markets
5. Want to optimize our business by
 - **anticipating our customers' purchasing needs**
 - **reducing fraud**
 - **delivering a more complete view of our customers**
 - **gaining early warning on product quality and customer satisfaction issues**

because the answers exist inside our organization, they're just buried underneath too much information

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Trusted Content Analytics

Helping organizations achieve smarter business outcomes by better knowing, trusting and leveraging their content



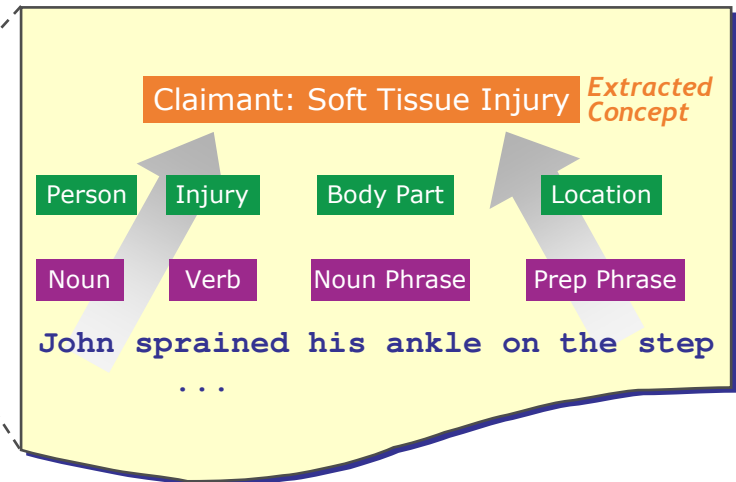
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Key Enabling Innovation: Content Analytics



Content Analytics

Based on UIMA, the open, industry-standard architecture for text analysis pioneered by IBM and now an OASIS standard and Apache open-source project



Analyzed Documents
with identified concepts

- For each document derive
 - New business understanding
 - New visibility from content
- Create structure and understanding from a group of words

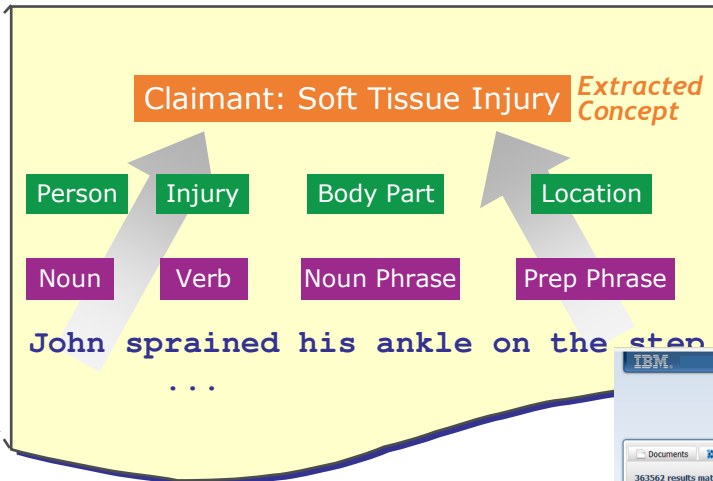
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Content Analytics enables analysis that was previously impractical

Aggregates conclusions & scales out understanding to large data sets



Source Info
(ECM, File, Web, DBMS, ...)

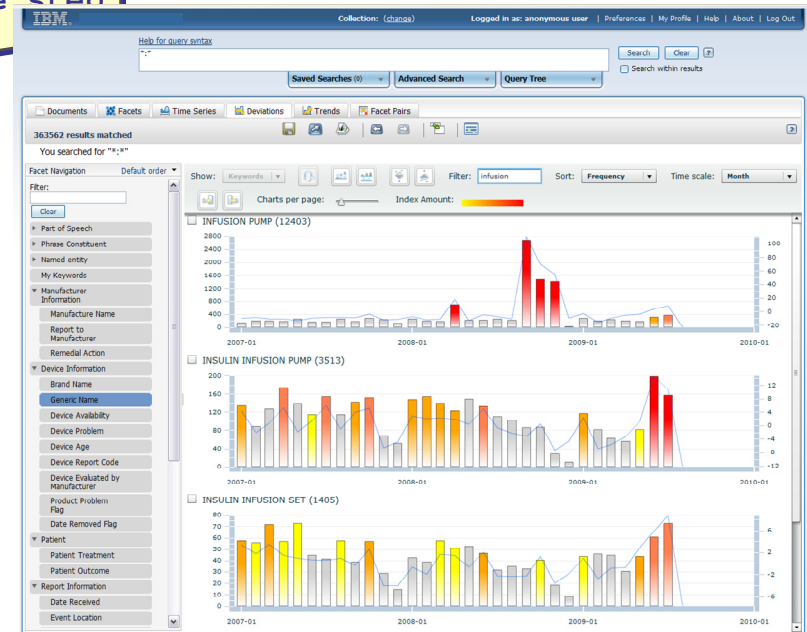


Analyzed Documents
with identified concepts

Automatic Visualization

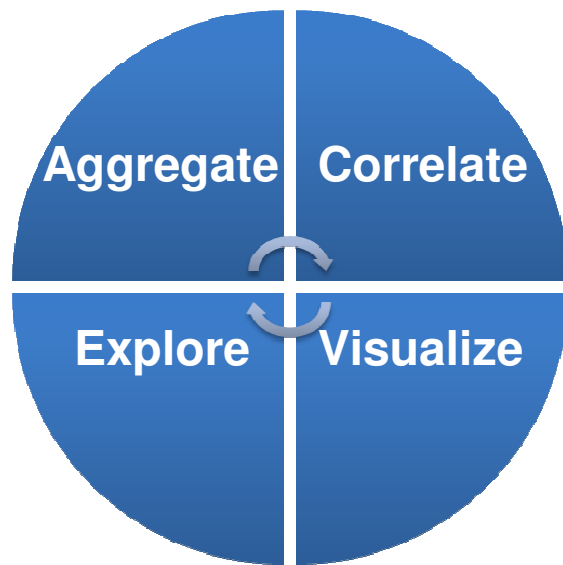
Concepts and tagged source information are visualized in UI

- ➔ **Content analytics scales out document by document content investigation**
- ➔ **Aggregate the conclusions**
- ➔ **Assess volumes of information not otherwise humanly possible (or cost effective)**



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Dynamic Analysis: Basis for Trusted Content Analytics Solutions



**Dynamic Analysis sets IBM
apart from every ECM vendor**

Aggregate ... form collections from multiple content sources and types unmatched in industry

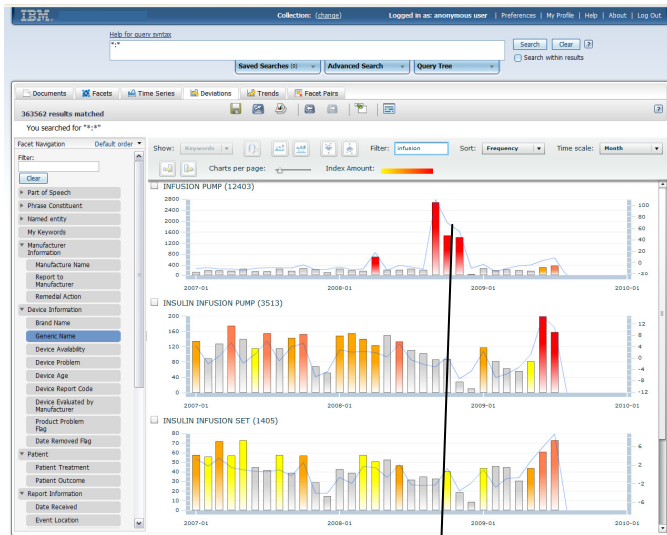
Correlate ... deep analysis of content that surfaces trends, relationships patterns, concepts and anomalous associations

Visualize ... easy to use, feature-rich views to quickly dissect large corpa of content and zero-in on answers

Explore ... freely investigate content with faceted navigation and drill down to surface new insight and understanding.

... to enable informed business decisions

Result: Platform and Solutions delivering business value



Separate the valuable content from the unnecessary

Keywords	Frequency	Correlation
report ... issue	397	28.5
report ... condition	219	31.1
estigate ... under	213	30.2
lette ... battery	126	7.5
... report	113	3.2
play ... error	108	10.9
... UNK	104	6.6
... unknown	98	4.2
... known	87	12.4
ut ... board	45	34.7
... defective	38	19.4
damage ... battery	33	54.2
replace ... due	32	26.9
print ... circuit	32	18.1
be ... in	27	1.8
confirm ... in	21	13.8
level ... were	16	23.3
detail ... were	14	7.5
Device Availability	14	11.4
obtain ... information	14	6.6
report ... failure	13	6.6
be ... due	13	2.0
will ... be	13	1.4
level ... over	10	62.3
wake ... UP	8	5.2
but ... case	6	6.6

Determine what customers will buy

Find early warnings on product quality concerns

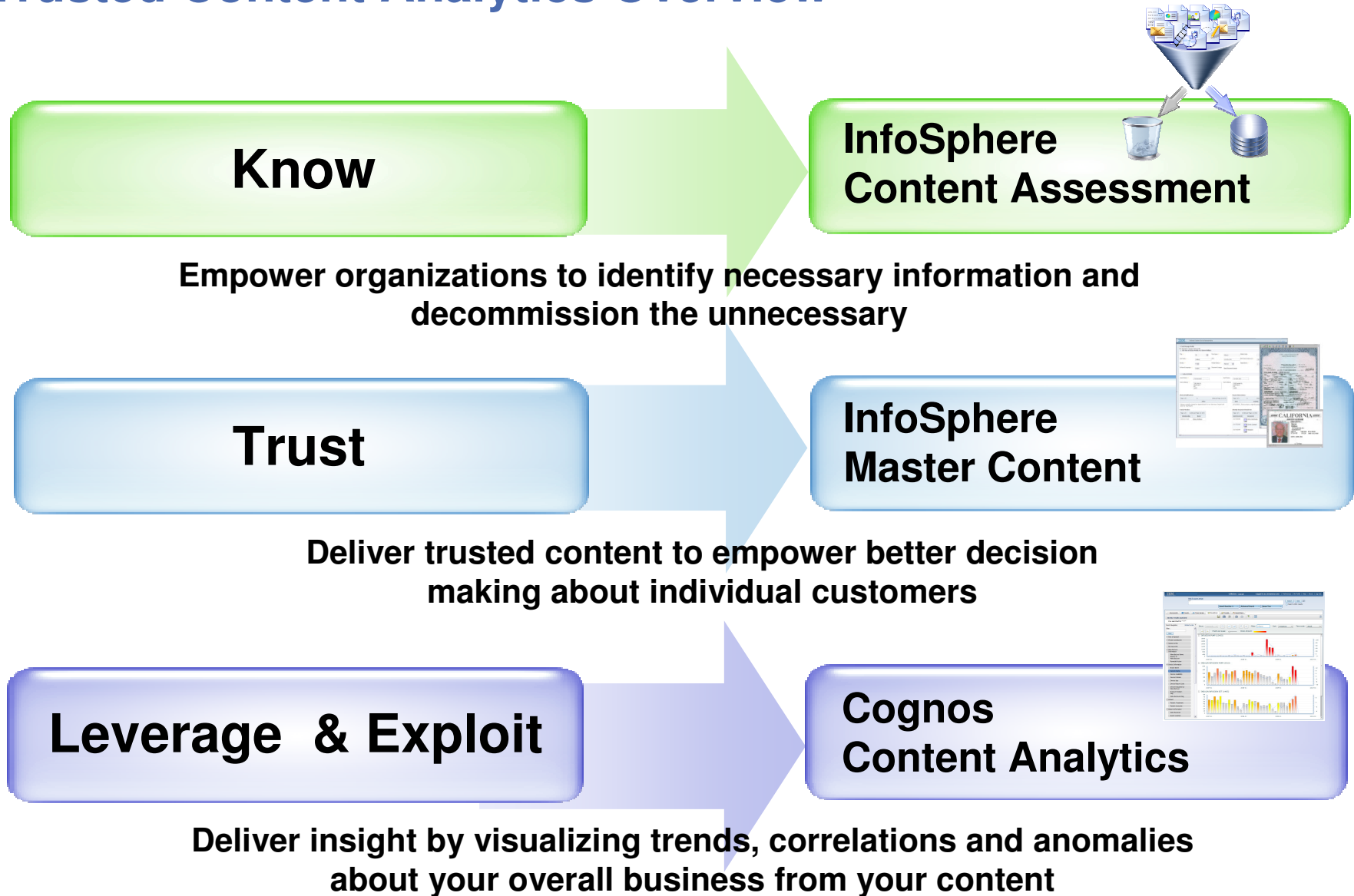
Source	Relevance	Date	Title
Web	89.76%	9/25/09	U.S. Products - Large Volume Infusion Pumps
Web	89.76%	9/25/09	U.S. Products - Large Volume Infusion Pumps
Web	88.16%	9/25/09	U.S. Products - Large Volume Infusion Pumps
Web	88.16%	9/25/09	U.S. Products - Large Volume Infusion Pumps
Web	73.05%	9/25/09	COLLEAGUE Volumetric Infusion Pump

Tells you something you may not know

Identify potentially fraudulent insurance claims

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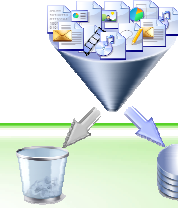
Trusted Content Analytics Overview



Trusted Content Analytics Overview

Know

**InfoSphere
Content Assessment**



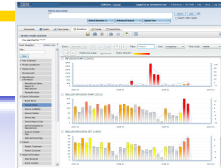
Trust

**InfoSphere
Master Content**

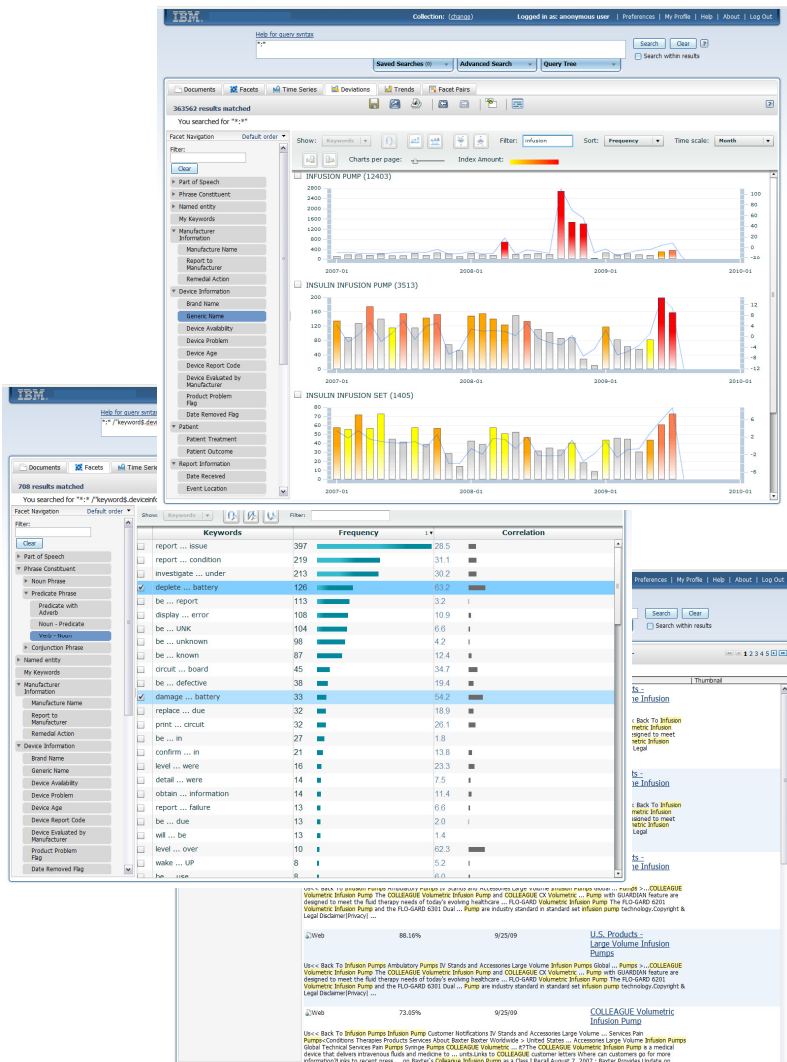


Leverage & Exploit

**Cognos
Content Analytics**



Introducing: Cognos Content Analytics (CCA 2.1)

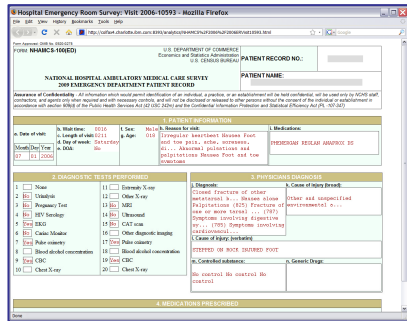


- Analyze and explore structured and unstructured information
- Automatic extraction of meaningful concepts and entities from text
- Open, standard UIMA-based text analysis pipeline
- Integration with Cognos for reporting against unstructured concepts
- Multiple graphical views of the facets (dimensions) of unstructured content
- Automatic highlighting of interesting anomalies and correlations in the data
- Support for analysis of over 30 content sources and over 150 content formats
- Integration with ICM for analysis of document categories, classes, and clusters
- Highly scalable and extensible

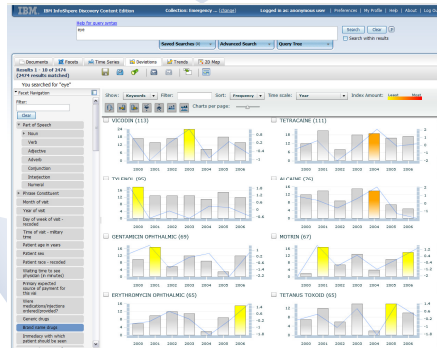
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Cognos Content Analytics Example

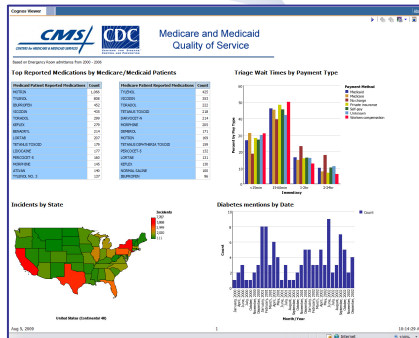
Content-Centric Business Intelligence – Health Insurance Example



Source Content
(ex: medical treatment record)



Interactive Discovery
(ex: trend & outlier analysis)



Operational Reporting
(ex: BI dashboard including content metrics)

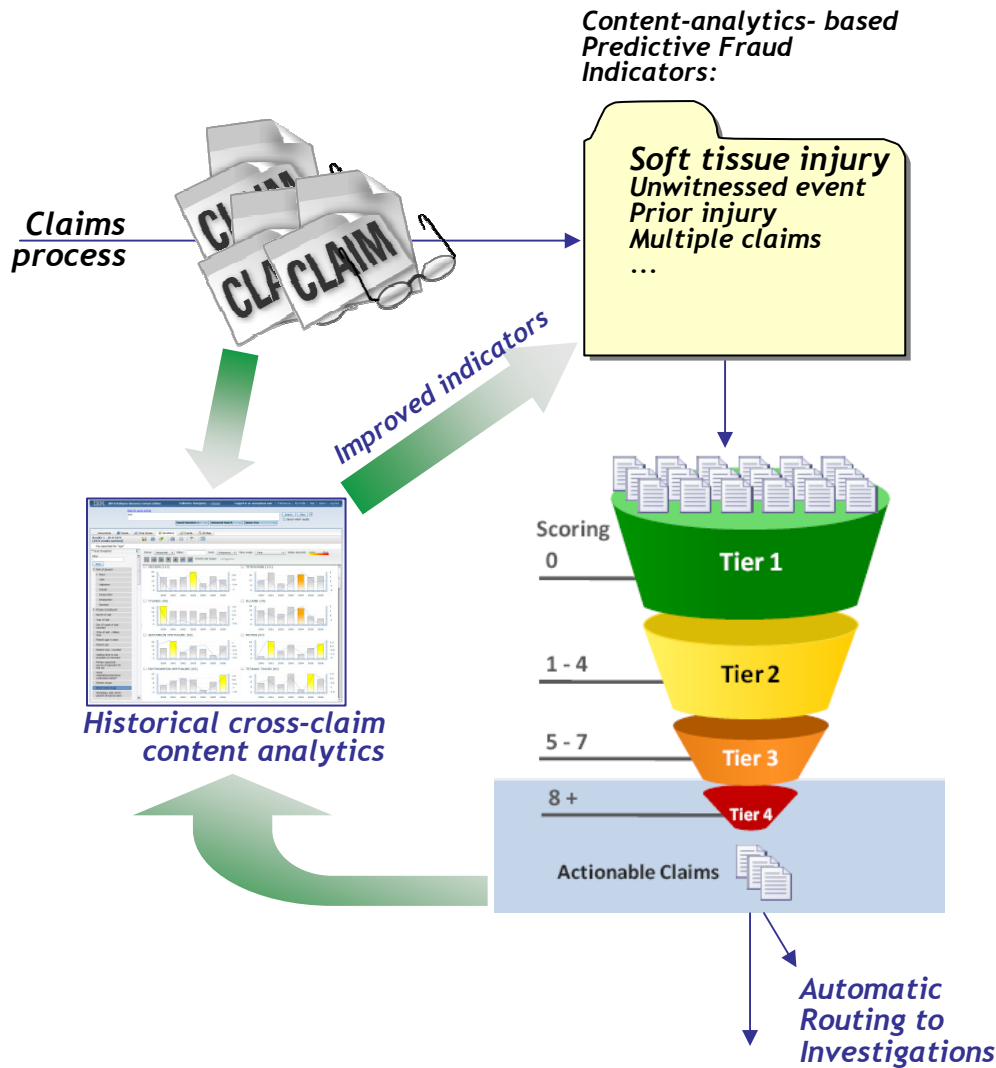


- ➔ Content Analytics over patient care records provides **insights for business optimization**, such as:
 - Cross-provider comparisons of care effectiveness/efficiency for key conditions enables better provider management
 - Analysis of drug prescribing patterns identifies opportunities for efficiency
 - Verification of patient compliance to home-care protocols helps optimize coverage models for efficiency
- ➔ Highlights best-practice pattern for effective **performance management** with content analytics
 - **Discovery:** exploratory analysis by business analyst to identify issues, opportunities, and content KPIs
 - **Tracking:** key content-derived metrics operationalized in BI reports, scorecards, dashboards, alerts
 - **Action:** organization is measured on operationalized metrics, driving action and closed-loop response

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Cognos Content Analytics Example

Content-Centric Business Intelligence – Reducing Claims Fraud



→ Content analytics helps **optimize claims processing** through automated fraud detection

- Automatic predictive analytics to identify and act on likely fraudulent claims
- Analysis and reporting of fraudulent claim patterns for closed-loop improvement

→ Typical results

- Optimization of claims admin process
 - Increase automation of fraud handling
 - Expose inconsistencies in fraud examiners' procedure, driving training to improve quality
- Reduce costs of paying fraudulent claims by 10% or more
- Improve regulatory compliance via faster fraud detection & investigation

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Cognos Content Analytics Example

Content-Centric Business Intelligence – Hearing the Voice of the Customer

→ The Opportunity

- Explosion of consumer feedback generated by social media
- Brand / Corporate Reputation and Product buying decisions are increasingly influenced by this feedback
- Companies that pro-actively monitor and manage this feedback can gain significant and sustainable competitive advantage

→ Consumer Insights solution:

- Filters news and social media to cull relevant feedback
- Analyzes feedback for mentions of brand, products and key topics and correlates with sentiment
- Provides a unique search based exploratory user interface combined with sophisticated Cognos reporting capabilities



Cognos.
software

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Content Analytics enables Many Solution Opportunities

Retail Banking Customer Care



- **Analyzing:** Call logs, online media
- **For:** Buyer Behavior
- **Benefits:** Improve Customer satisfaction, marketing campaigns, find new revenue opportunities

Retail Customer Care



- **Analyzing:** Call logs, online media
- **For:** Brand Reputation Management
- **Benefits:** Improve customer sat, marketing campaigns

Crime Analytics



- **Analyzing:** Police records, 911 calls...
- **For:** Rapid crime solving & crime trend analysis
- **Benefits:** Safer communities & optimized force deployment



Healthcare Analytics



- **Analyzing:** Care records
- **For:** Clinical analysis; treatment protocol optimization
- **Benefits:** Better management of chronic diseases; optimized drug formularies; improved patient outcomes

Automotive Quality Insight



- **Analyzing:** Tech notes, call logs, online media
- **For:** Brand Reputation Management
- **Benefits:** Reduce warranty costs, improve customer satisfaction, marketing campaigns

Telco Customer Care



- **Analyzing:** Call center logs and emails
- **For:** Churn prediction and FAQ generation
- **Benefits:** Improved customer retention & customer satisfaction

Insurance Fraud



- **Analyzing:** Insurance claims
- **For:** Detecting Fraudulent activity & patterns
- **Benefits:** Reduced losses, faster detection, more efficient claims processes

...and more!

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Customers: Business Optimization Enabled by Content Analytics

Smarter Insurance



Large Claims Third-Party Administrator

Analytics over insurance claim files helps detect fraud faster, reducing costs for their clients by \$millions and optimizing the claims-handling process

Smarter Telecommunications



NTT DoCoMo

Analytics over Voice of Customer data provides insight to drive customer-oriented decision making, boosting loyalty and creating new opportunity

Smarter CPG



Kraft Australia

Analytics over online customer postings helps Kraft target and deliver new branding campaigns, increasing sales and customer loyalty.

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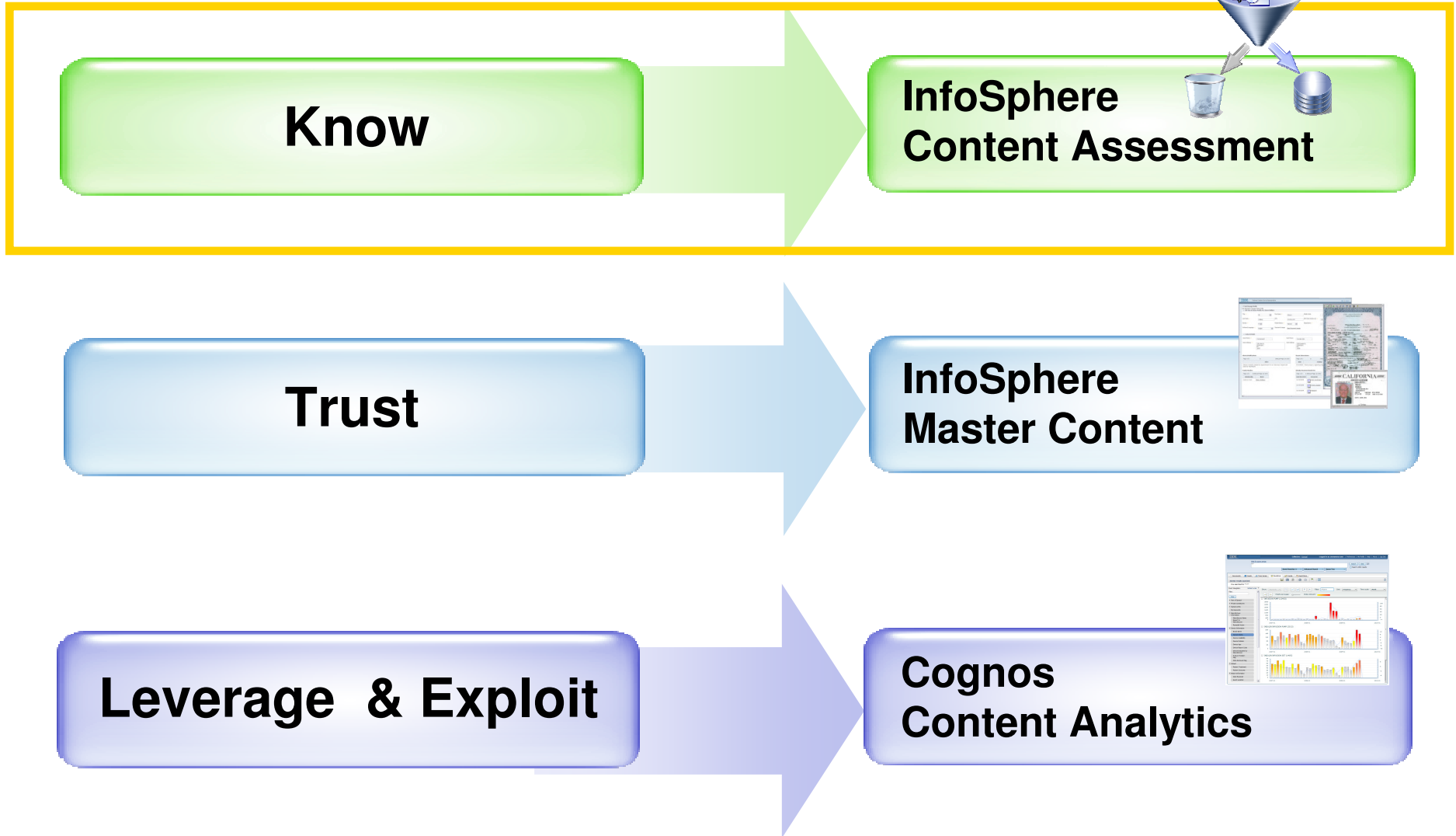
Smarter Healthcare Plans



Blue Cross Blue Shield of TN

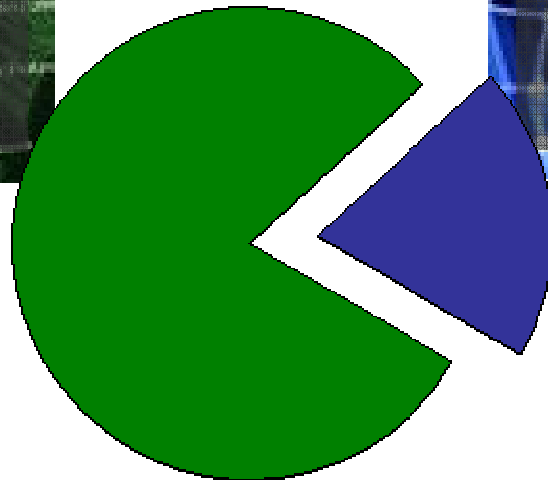
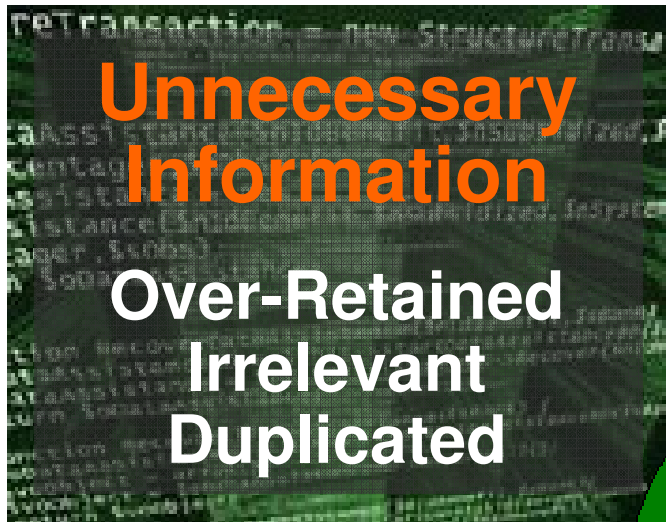
Analytics over an integrated single view of plans, patients and providers enables better negotiations and improves provider satisfaction to over 90%

Trusted Content Analytics Overview



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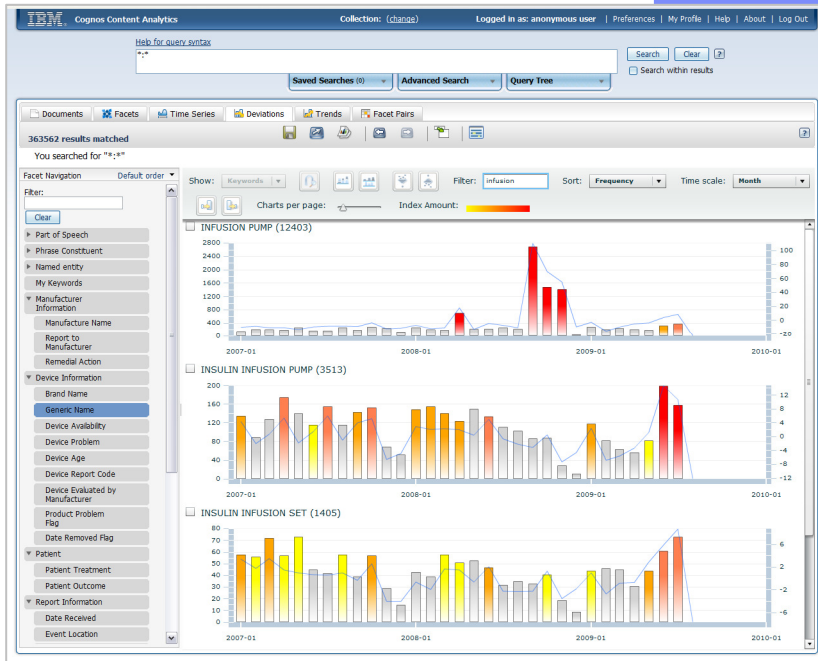
Unnecessary Information Eclipses Necessary Information



*How much of your information is unnecessary?
70%? 80%? 90%?*

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Content Assessment Enables Content Decommissioning

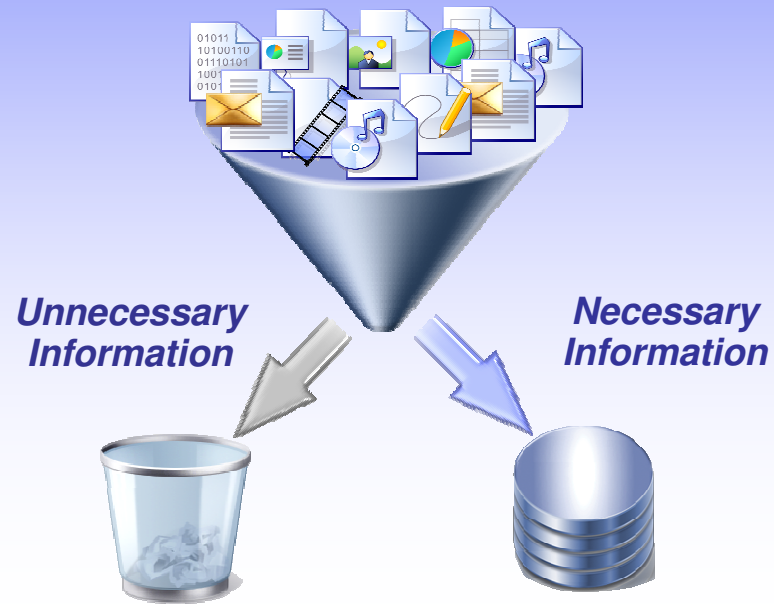


Content Decommissioning helps gain control by eliminating unneeded content and content systems while preserving valued content

Bloated Production Systems with Inefficient Storage

Content Based Systems Needing Retirement

Content In The Wild



One customer found 1200 copies of the same policy document, including 5 different versions, distributed across enterprise file servers

IBM InfoSphere Content Assessment

Leveraging Content Analytics to:

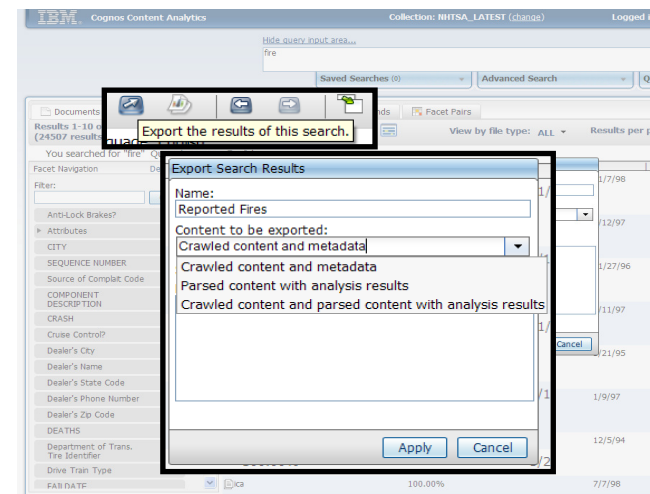
- 1** **Dynamically Analyze** what you have
Aggregate, Correlate, Visualize and Explore your enterprise information in new ways to understand virtually all content types from multiple sources. Make rapid *decisions* about business value, relevance and disposition.
- 2** **Decommission** what's unnecessary
Save cost and reduce risk by eliminating obsolete, over-retained, duplicate, and irrelevant content – and the infrastructure that supports it.
- 3** **Preserve and Exploit** the content that matters
Collect valued content to manage, trust and govern throughout its lifespan in an enterprise-grade ECM platform. Uncover new business value and insight by integrating with solutions for eDiscovery, case management, master data management, business intelligence, predictive analytics and more.

Content Assessment Delivers Content to ECM Platform through Interactive Exploration

Dynamic Analysis leads to . . .



. . . export and collection of valued content for management.



→ Solution Bundle of 3 products:

- Cognos Content Analytics for core dynamic analysis with user interfaces
- InfoSphere Classification Module for additional content categorization, modular content analytics (works with both CCA and ICC) and taxonomy proposal
- InfoSphere Content Collector for File Systems for gaining control of content

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Typical Savings from Content Decommissioning

Content decommissioning, dynamic collection for eDiscovery lead to measurable ROI

Cost Drivers

Savings After Deployment

Production System Tangible Costs

- Email / File / SharePoint Storage
- Production System Servers
- Backup

Storage Management Tangible Savings

- 50%-80%
- 40%-60%
- Cost of backup media and storage

Production System Productivity Costs

- Production System Administration
- End-User Administration / Classification

Storage Management Productivity Savings

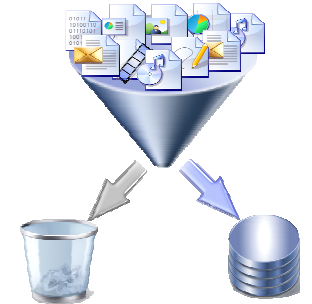
- 20% to 80%
- 70% to 90%

eDiscovery Costs

- Data Spoliation (fines, lost or settled cases)
- Labor costs of providing the information

eDiscovery Cost Avoidance

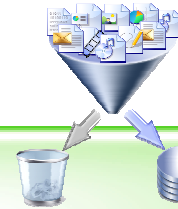
- Up to 100%
- Hours vs. Days



Trusted Content Analytics Overview

Know

**InfoSphere
Content Assessment**



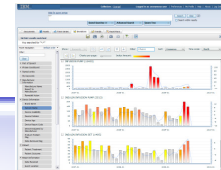
Trust

**InfoSphere
Master Content**



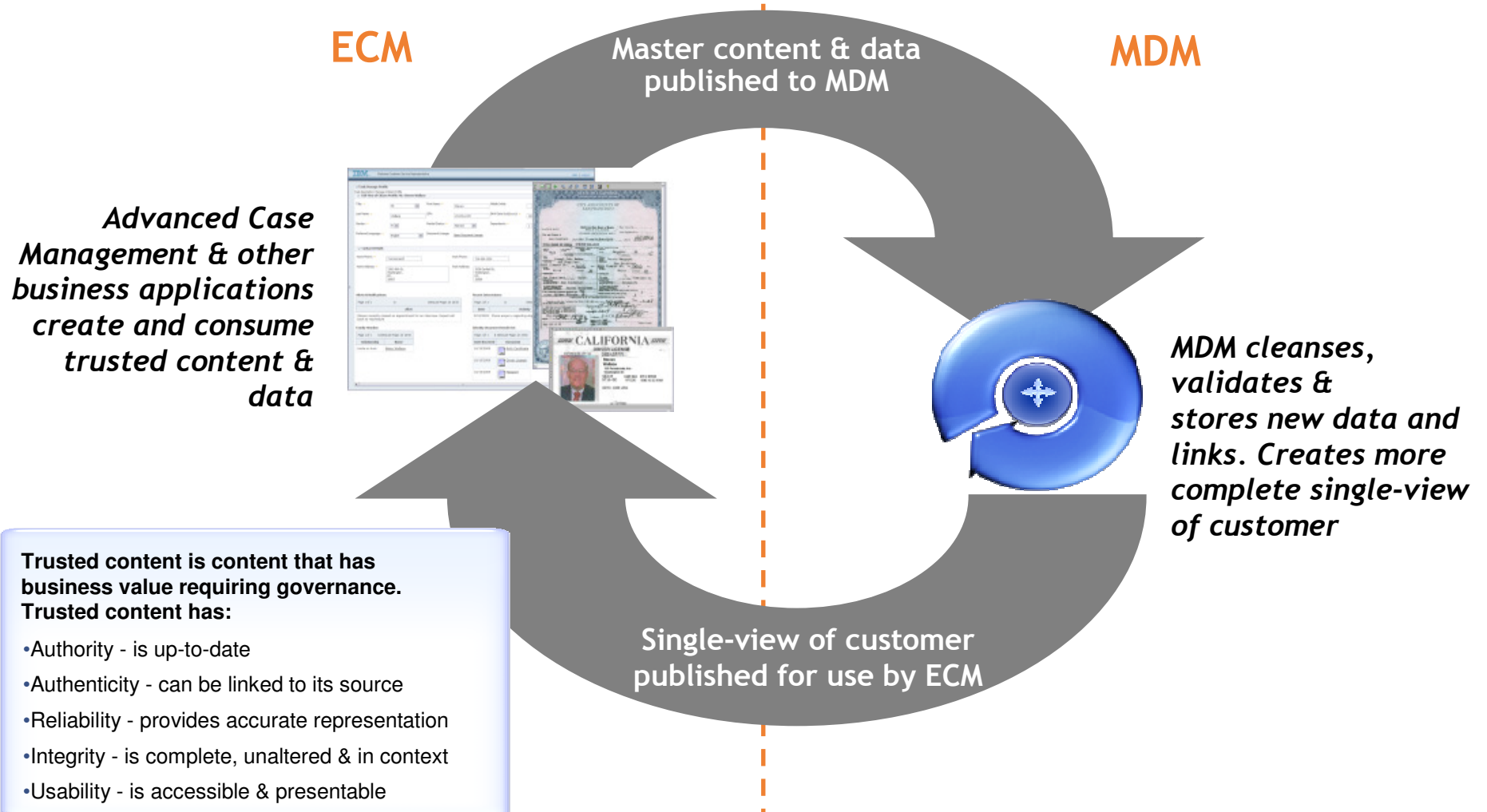
Leverage & Exploit

**Cognos
Content Analytics**



InfoSphere Master Content – Delivering Trusted Content

For Advanced Case Management and other ECM Customer-Centric Applications



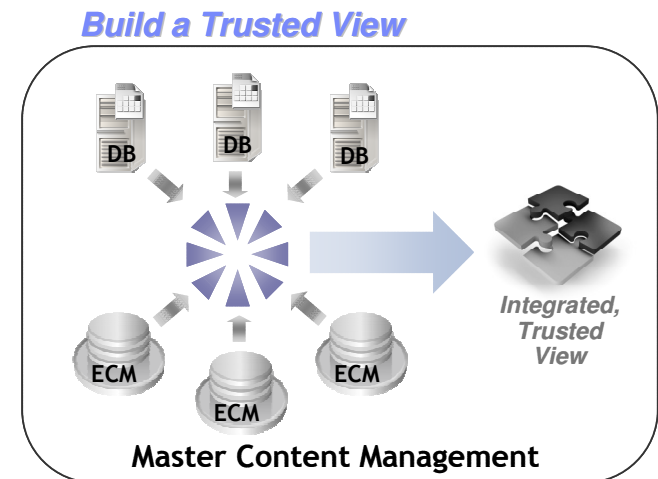
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Trust: Master Content for Trusted Views

A common architecture for creating complete, trusted views of key business entities

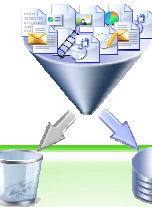
- Master Content Management creates trusted views of business entities, linking ECM content to MDM master records
- **ECM** provides integrated, trusted content
 - Federation and collection to integrate content into a master catalog
 - Business processes and lifecycle management to maintain content quality
 - Classification and metadata tools to improve content quality
- **MDM** provides an information hub and business entity definition
 - Connections to sources of information about key business entities
 - Tools and processes to define master entities, reconcile information, & create master entity records
 - Services to deliver master information to consuming applications
- **InfoSphere Master Content** links IBM ECM and MDM to create complete single views of entities
 - Identifies, establishes and maintains links between enterprise content and its appropriate master record
 - Leverage enterprise content to create trusted linkages between content and MDM records
 - Augment and enhance your master records to create fuller, single views



Trusted Content Analytics Summary

Deliver new insight from content assets by:

→ *Knowing* your content by dynamically analyzing it to make rapid decisions about it, to cut costs and optimize storage



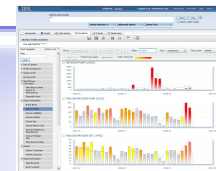
InfoSphere Content Assessment

→ *Trust* content to create more complete, in-depth single version of the truth as encapsulated in organizations' master data for customers/citizens



InfoSphere Master Content

→ *Leveraging and exploiting* content to spot issues and important trends that may fall outside of the normal business reporting channels and deliver new insights to business users across the organization.



Cognos Content Analytics

Thank
YOU

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Demo: Content Analytics Saving Lives

Detecting medical device failures 8 months earlier
than manual approaches

MedWatch

The FDA Safety Information and Adverse Event Reporting Program

General Instructions

For VOLUNTARY reporting of adverse events, product problems and use errors



FDA USE ONLY	
Triage unit #	
Sequence #	

A. PATIENT INFORMATION			
1. Patient Identifier (In confidence)	2. Age (In confidence)	3. Sex <input type="checkbox"/> Female <input type="checkbox"/> Male	4. Weight Lb or Kg
B. ADVERSE EVENT, PRODUCT PROBLEM OR ERROR			
1. Date of Event 2006-03-15		2. Date of this Report 2006-03-15	
3. Describe Event, Problem, or Product Use Error THE FACILITY REPRESENTATIVE REPORTED A BAD BATTERIES DURING BIOMED TESTING ON SITE. THE HOSPITAL REPRESENTATIVE DID NOT HAVE INFORMATON REGARDING WHETHER THERE HAVE BEEN ANY REPORTS OF ANY PATIENT INJURY OR MEDICAL INTERVENTION. NO ADDITIONAL INFORMATION IS AVAILABLE.			

E. SUSPECT MEDICAL DEVICE	
1. Brand Name COLLEAGUE 3CX VOLUMETRIC INFUSION PUMP	
2. Common Device Name INFUSION PUMP	
3. Manufacturer Name BAXTER HEALTHCARE PTE. LTD.	
4. Device Problem	5. Manufacturer Evaluation
	EVALUATION SUMMARY: THE REPORTED CONDITION OF DEPLETED BATTERIES WAS CONFIRMED. THE BATTERIES WERE REPLACED DUE TO POTENTIAL DAMAGE. REVIEW OF THE COMPLAINT HISTORY REVEALS SIMILAR REPORTS HAVE BEEN RECEIVED FOR THIS PRODUCT FOR THE REPORTED ISSUE. THIS ISSUE IS BEING INVESTIGATED UNDER CAPA. EVALUATION WAS CONDUCTED ON SITE

FDA MedWatch incident reports are one source of data for **medical device manufacturers** to understand problems being reported by consumers about their products. It contains both **structured and unstructured** information. A manufacturer could **also analyze internal content**, such as warranty claims or support incidents

[Help for query syntax](#)

**:*

Search

Clear

 Search within results

Saved Searches (0)

Advanced Search

Query Tree

Documents

Facets

Time Series

Deviations

Trends

Facet Pairs

363562 results matched

You searched for "**:*"

Facet Navigation

Default order

Filter:

Clear

▶ Part of Speech

▶ Phrase Constituent

▶ Named entity

My Keywords

▼ Manufacturer

Information

Manufacture Name

Report to

Manufacturer

Remedial Action

▼ Device Information

Brand Name

Generic Name

Device Availability

Device Problem

Device Age

Device Report Code

Device Evaluated by

Manufacturer

Product Problem

Flag

Date Removed Flag

▼ Patient

Patient Treatment

Patient Outcome

▼ Report Information

Date Received

Event Location

Show: Keywords



Filter: infusion

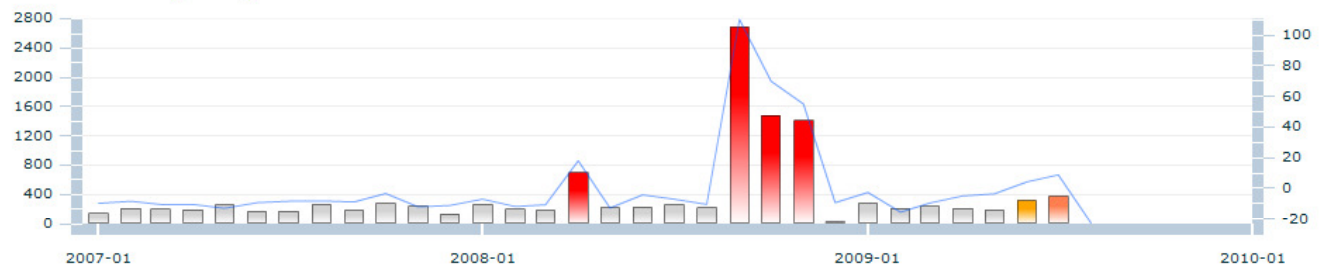
Sort: Frequency

Time scale: Month

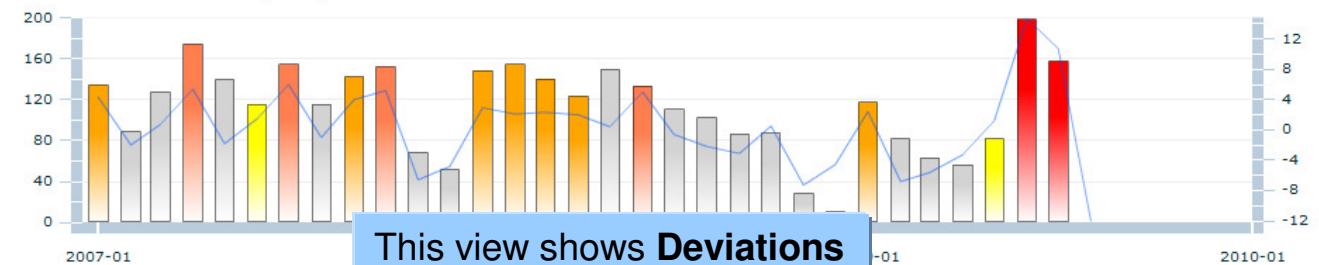
Charts per page:

Index Amount:

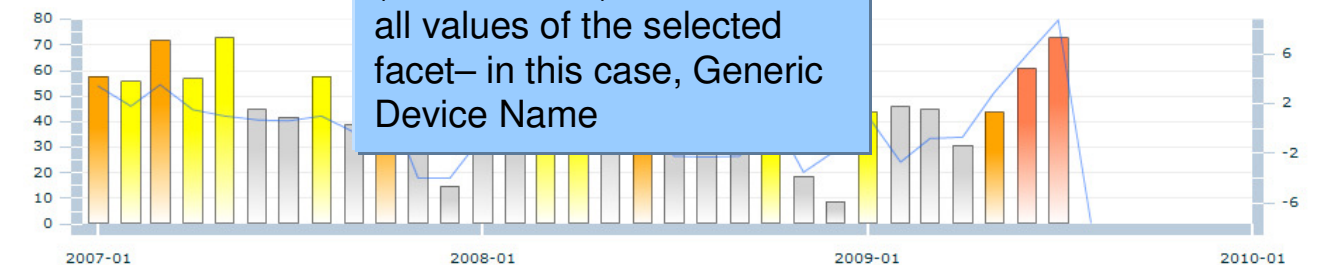
INFUSION PUMP (12403)



INSULIN INFUSION PUMP (3513)



INSULIN INFUSION SET (1405)



This view shows **Deviations** (or anomalies) **over time** for all values of the selected facet— in this case, Generic Device Name

[Help for query syntax](#)

.

Search

Clear

 Search within results

Saved Searches (0)

Advanced Search

Query Tree

Documents Facets Time Series Deviations Trends Facet Pairs

363562 results matched

You searched for " *.* "

Facet Navigation

Default order

Filter:

Clear

▶ Part of Speech

▶ Phrase Constituent

▶ Named entity

My Keywords

▼ Manufacturer

Information

Manufacture Name

Report to

Manufacturer

Remedial Action

▼ Device Information

Brand Name

Generic Name

Device Availability

Device Problem

Device Age

Device Report Code

Device Evaluated by

Manufacturer

Product Problem

Flag

Date Removed Flag

▼ Patient

Patient Treatment

Patient Outcome

▼ Report Information

Date Received

Event Location

Show: Keywords



Filter: infusion

Sort: Frequency

Time scale: Month



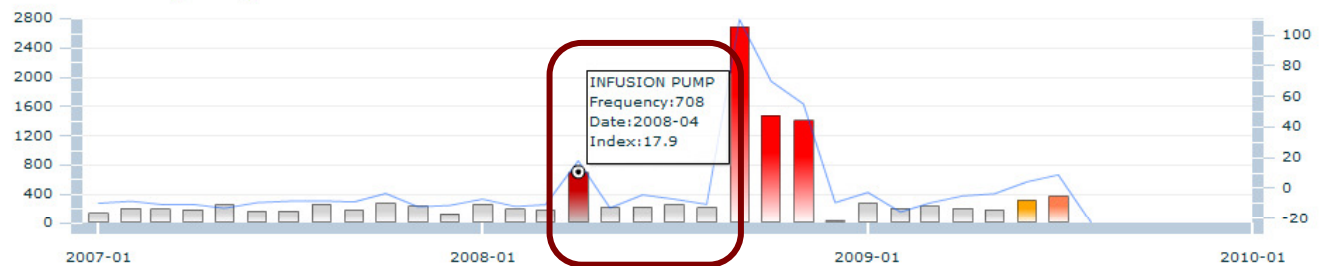
Charts per page:



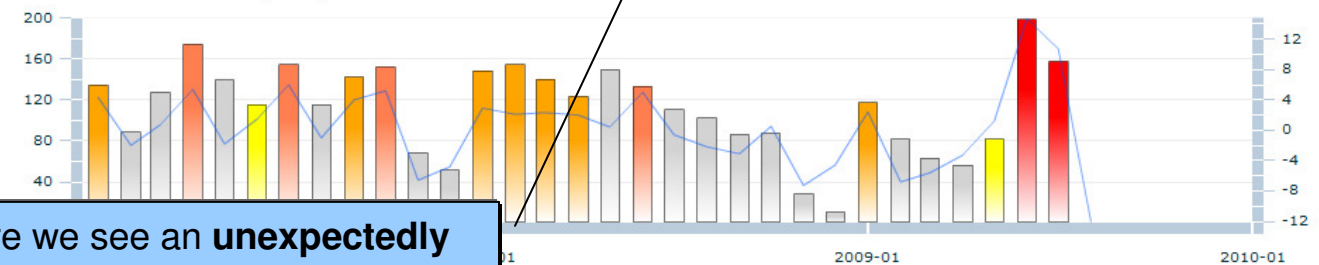
Index Amount:



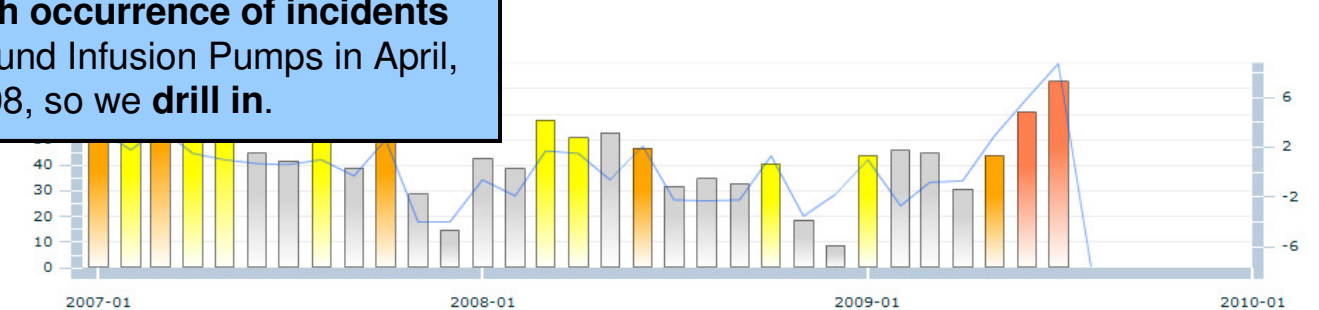
INFUSION PUMP (12403)



INSULIN INFUSION PUMP (3513)



Here we see an **unexpectedly high occurrence of incidents** around Infusion Pumps in April, 2008, so we **drill in**.



[Help for query syntax](#)

: /"keyword\$.deviceinformation.genericname"/"INFUSION PUMP" /"date\$.month"/"200804"

Search Clear ?

Search within results

Saved Searches (0)

Advanced Search

Query Tree

Documents Facets Time Series Deviations Trends Facet Pairs

708 results matched

You searched for "":* /"keyword\$.deviceinformation.genericname"/"INFUSION PUMP" /"date\$.month"/"200804"

Facet Navigation Default order

Filter:

Show: Keywords

Keywords	Frequency	Correlation
<input type="checkbox"/> report ... issue	397	28.5
<input type="checkbox"/> report ... condition	219	31.1
<input type="checkbox"/> investigate ... under	213	30.2
<input checked="" type="checkbox"/> deplete ... battery	126	63.2
<input type="checkbox"/> be ... report	113	3.2
<input type="checkbox"/> display ... error	108	10.9
<input type="checkbox"/> be ... UNK	104	6.6
<input type="checkbox"/> be ... unknown	98	4.2
<input type="checkbox"/> be ... known	87	12.4
<input type="checkbox"/> circuit ... board	45	34.7
<input type="checkbox"/> be ... defective	38	19.4
<input checked="" type="checkbox"/> damage ... battery	33	54.2
<input type="checkbox"/> replace ... due	32	18.9
<input type="checkbox"/> print ... circuit	32	26.1
<input type="checkbox"/> be ... in	27	1.8
<input type="checkbox"/> confirm ... in	21	13.8
	16	23.3
	14	7.5
	14	11.4
	13	6.6
	13	2.0
	13	1.4
	10	62.3
	8	5.2
	8	6.0

Facet Navigation: Part of Speech, Phrase Constituent (Noun Phrase, Predicate Phrase, Verb - Noun), Named entity, My Keywords, Manufacturer Information, Device Information

Facet 1: Part of Speech

Facet 2: Phrase Constituent

Facet 3: Named entity

Facet 4: My Keywords

Facet 5: Manufacturer Information

Facet 6: Device Information

Switching to the **Facets** view of **key phrases**, we see frequent mentions of **battery issues** in Infusion Pump incidents reported in April, 2008. We drill down into these battery issues.

[Help for query syntax](#)

```
*:* /"keyword$.deviceinformation.genericname"/"INFUSION PUMP" /"date$.month"/"200804" (  
/"keyword$._phrase.pred_phrase.verb_noun"/"deplete ... battery" OR /"keyword$._phrase.pred_phrase.verb_noun"/"damage ...  
battery" OR /"keyword$._phrase.pred_phrase.verb_noun"/"fail ... battery" )
```

Search

Clear

 Search within results

Saved Searches (0)

Advanced Search

Query Tree

Documents Facets Time Series Deviations Trends Facet Pairs

Results 1-10 of 154 (154 results matched) View by file type: ALL Results per Page 10

You searched for "*/"keyword\$.deviceinformation.genericname"/"INFUSION PUMP" /"date\$.month"/"200804" (/ "keyword\$._phrase.pred_phrase.verb_noun"/"deplete ... battery" OR /"keyword\$._phrase.pred_phrase.verb_noun"/"damage ... battery" OR /"keyword\$._phrase.pred_phrase.verb_noun"/"fail ... battery")"

Facet Navigation	Default order	Source	Relevance	Date	Title	Thumbnail
Filter:		Windows file system	100.00%	4/4/08	MAUDE-1023177.xml	
Clear		INFUSION PUMP BAXTER HEALTHCARE PTE. LTD. NA 2M8153 NA NA Device was returned to ... DEVICE EVALUATION WS COMPLETED AND THE FAILED BATTERY TEST REVEALED DEPLETED BATTERIES . THE ...				
Part of Speech		Windows file system	100.00%	4/3/08	MAUDE-1023097.xml	
Phrase Constituent		INFUSION PUMP BAXTER HEALTHCARE PTE. LTD. NA 2M8151 NA NA Device was returned to ... WAS CONFIRMED (3 DISCHARGES BELOW ALARM THRESHOLD FOUND) DUE TO POTENTIALLY DAMAGED BATTERIES DURING SERVICE TESTING, DEPLETED BATTERIES WERE FOUND. ACCORDING TO THE HOSPITAL REPRESENTATIVE, ...				
Named entity		Windows file system	100.00%	4/3/08	MAUDE-1023105.xml	
My Keywords		RY CONDITION WAS CONFIRMED DUE TO POTENTIALLY DAMAGED BATTERIES . TTERIES WERE FOUND. ACCORDING TO THE HOSPITAL REPRESENTATIVE ...				
Manufacturer Information		4/3/08			MAUDE-1023116.xml	
Manufacture Name		Device was returned to ... AND THE DEPLETED BATTERY CONDITION WAS CONFIRMED DUE TO POTENTIALLY DAMAGED BATTERIES . BAXTER ... DURING SERVICE TESTING DEPLETED BATTERIES WERE FOUND. ACCORDING TO THE HOSPITAL REPRESENTATIVE ...				
Report to Manufacturer						
Remedial Action						
Device Information						
Brand Name						
Generic Name						
Device Availability						
Device Problem						
Device Age						
Device Report Code						
Device Evaluated by Manufacturer						
Product Problem Flag						
Date Removed Flag						
Patient						
Patient Treatment						
Patient Outcome						
Report Information						
Date Received						
Event Location						

In the documents view, we can see the **original source documents** about these 154 battery-related infusion pump incidents. Relevant matching text from the original documents is **highlighted**.


[Help for query syntax](#)

```
*:*/"keyword$.deviceinformation.genericname"/"INFUSION PUMP"/"date$.month"/"200804" (
/"keyword$._phrase.pred_phrase.verb_noun"/"deplete ... battery" OR /"keyword$._phrase.pred_phrase.verb_noun"/"damage ...
battery" OR /"keyword$._phrase.pred_phrase.verb_noun"/"fail ... battery" )
```


 Search within results

Documents
Facets
Time Series
Deviations
Trends
Facet Pairs

154 results matched

You searched for `"*/"keyword$.deviceinformation.genericname"/"INFUSION PUMP"/"date$.month"/"200804" (/"keyword$._phrase.pred_phrase.verb_noun"/"deplete ... battery" OR /"keyword$._phrase.pred_phrase.verb_noun"/"damage ... battery" OR /"keyword$._phrase.pred_phrase.verb_noun"/"fail ... battery")"`

Facet Navigation Default order

Filter:

- ▶ Part of Speech
- ▶ Phrase Constituent
- ▶ Named entity
- My Keywords
- ▼ Manufacturer Information
 - Manufacture Name
 - Report to Manufacturer
 - Remedial Action
- ▼ Device Information
 - Brand Name**
 - Generic Name
 - Device Availability
 - Device Problem
 - Device Age
 - Device Report Code
 - Device Evaluated by Manufacturer
 - Product Problem Flag
 - Date Removed Flag
- ▼ Patient
 - Patient Treatment
 - Patient Outcome
- ▼ Report Information
 - Date Received
 - Event Location

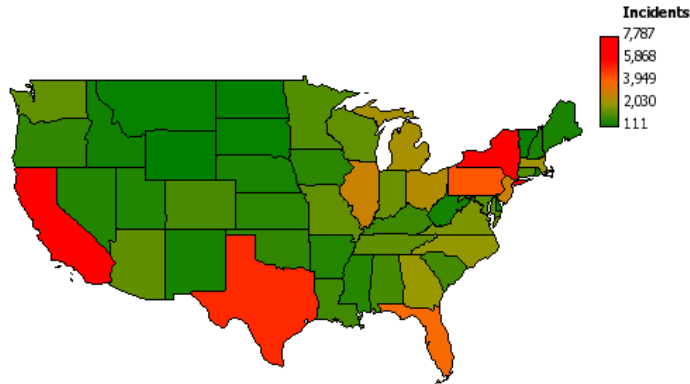
Show: Keywords

Filter:

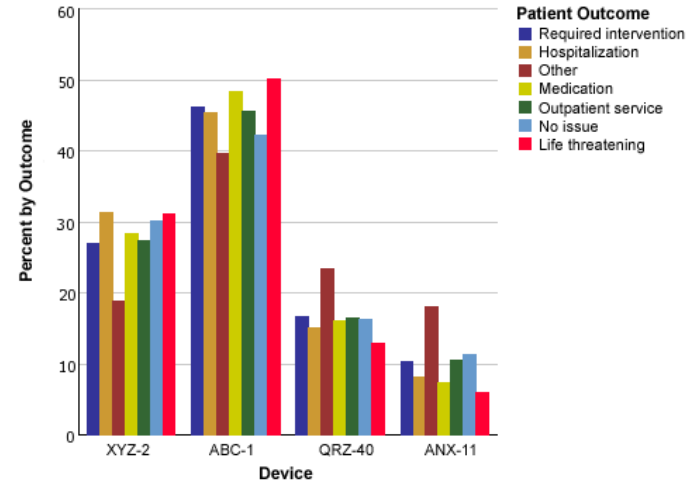
	Keywords	Frequency	Correlation
<input type="checkbox"/>	COLLEAGUE CX VOLUMETRIC INFUSION	56	91.8
<input type="checkbox"/>	COLLEAGUE VOLUMETRIC INFUSION PU	41	107.1
<input type="checkbox"/>	COLLEAGUE 3CX VOLUMETRIC INFUSIO	22	58.3
<input type="checkbox"/>	COLLEAGUE 3 VOLUMETRIC INFUSION P	14	60.8
<input type="checkbox"/>	COLLEAGUE CX VOLUMETRIC INFUSION	11	1,178.6
<input type="checkbox"/>	COLLEAGUE 3CX VOLUMETRIC INFUSIO	7	1,232.1
<input type="checkbox"/>	COLLEAGUE TRIPLE CHANNEL VOLUMET	2	55.3
<input type="checkbox"/>	REFURBISHED COLLEAGUE VOLUMETRI	1	49.2

Switching to a Brand Name **facet view**, we can immediately see a **summary, by frequency and correlation**, of the devices that are mentioned in these battery-related incidents.

Incidents by State



Patient Outcomes by Device

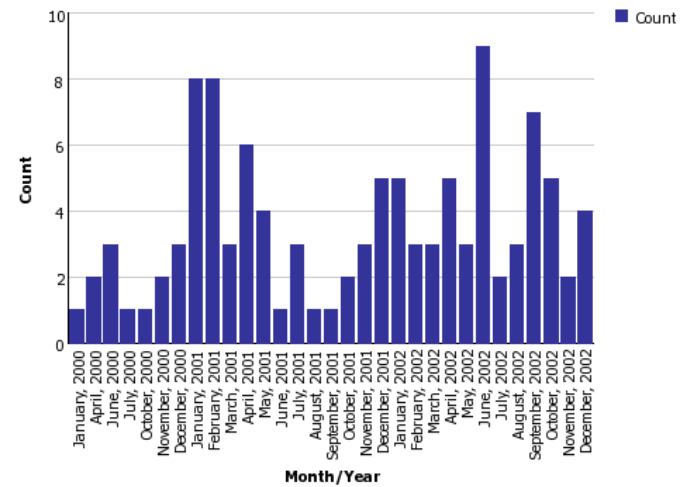


Top correlated medications reported by device

Top medications for XYZ-2	Count	Top medications for ABC-1	Count
MOTRIN	1,066	TYLENOL	425
TYLENOL	808	VICODIN	353
IBUPROFEN	452	TORADOL	222
			218
			214
			205
			171
			169
			159
			132
			131
			130
			100
			96

Through Cognos Content Analytics OLAP/Star Schema export ability, Cognos BI reports and dashboards can be created to monitor and track these issues over time.

Battery mentions by Date



[Help for query syntax](#)

colleague volumetric infusion pump

Search

Clear

Saved Searches (0)

Advanced Search

 Search within resultsResults 1-10 of 47
(47 results matched)

View by file type: ALL - Results per Page 10 -

1 2 3 4 5

You searched for "colleague volumetric infusion pump"

Narrow Your Results		Source	Relevance	Date	Title	Thumbnail
Facet Tree		Web	89.76%	9/25/09	U.S. Products - Large Volume Infusion Pumps	
Dynamic Facet Chart		Us<< Back To Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ... Us<< Back To Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ... Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer Privacy ...				
date		Web	89.76%	9/25/09	U.S. Products - Large Volume Infusion Pumps	
2009 (47)		Us<< Back To Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ... Us<< Back To Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ... Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer Privacy ...				
2009/9 (47)		Web	88.16%	9/25/09	U.S. Products - Large Volume Infusion Pumps	
2009/9/25 (47)		Us<< Back To Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ... Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer Privacy ...				
2009/9/25/3 (47)		Web	88.16%	9/25/09	U.S. Products - Large Volume Infusion Pumps	
		Us<< Back To Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ... Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer Privacy ...				
		Web	73.05%	9/25/09	COLLEAGUE Volumetric Infusion Pump	
		Us<< Back To Infusion Pumps Infusion Pump Customer Notifications IV Stands and Accessories Large Volume ... Services Pain Pumps<Conditions Therapies Products Services About Baxter Baxter Worldwide > United States ... Accessories Large Volume Infusion Pumps Global Technical Services Pain Pumps Syringe Pumps COLLEAGUE Volumetric ... it?The COLLEAGUE Volumetric Infusion Pump is a medical device that delivers intravenous fluids and medicine to ... units.Links to COLLEAGUE customer letters Where can customers go for more information?Links to recent press ... on Baxter's Colleague Infusion Pump as a Class I Recall August 7, 2007 : Baxter Provides Update on				

When a potential **regulatory, legal, or compliance issue** is identified, the same Content Analytics interface can be used to **search for internal documents** that might be relevant.

[Help for query syntax](#)

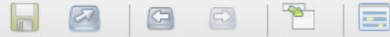
colleague volumetric infusion pump

Search

Clear

Saved Searches (0)

Advanced Search

 Search within resultsResults 1-10 of 47
(47 results matched)

View by file type: ALL - Results per Page 10 -

1 2 3 4 5

You searched for "colleague volumetric infusion pump"

Narrow Your Results	Source	Relevance	Date	Title	Thumbnail
Facet Tree	Web	89.76%	9/25/09	Baxter U.S. Products - Large Volume Infusion Pumps	
Dynamic Facet Chart	Web	88.16%	9/25/09	Baxter U.S. Products - Large Volume Infusion Pumps	
date	Web	73.05%	9/25/09	COLLEAGUE Volumetric Infusion Pump	

2009 (47)

2009/9 (47)

2009/9/25 (47)

2009/9/25/3 (47)

Export Search Results

Name: results_1253898469

Content to be exported: Crawled content and metadata

Schedulable: Yes No

Description:

Apply Cancel

Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer|Privacy| ...

Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer|Privacy| ...

Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer|Privacy| ...

Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer|Privacy| ...

Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer|Privacy| ...

Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer|Privacy| ...

Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Us<< Back To [Infusion Pumps Ambulatory Pumps IV Stands and Accessories Large Volume Infusion Pumps Global ...](#) Pumps >...COLLEAGUE Volumetric Infusion Pump The COLLEAGUE Volumetric Infusion Pump and COLLEAGUE CX Volumetric ... Pump with GUARDIAN feature are designed to meet the fluid therapy needs of today's evolving healthcare ... FLO-GARD Volumetric Infusion Pump The FLO-GARD 6201 Volumetric Infusion Pump and the FLO-GARD 6301 Dual ... Pump are industry standard in standard set infusion pump technology.Copyright & Legal Disclaimer|Privacy| ...

These internal documents from across the enterprise can be gathered and exported for archiving into a centralized IBM ECM repository.

Demo: Content Analytics Exposing New Insight

Discovering Unexpected Correlations in
ER medical records data



Join us on TWITTER! - <http://twitter.com/IOD2010ASEAN>

[Help for query syntax](#)

Search Clear ?

Hospital Emergency Room Survey: Visit 2006-10593 - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://colfax4.charlotte.ibm.com:8393/analytics/NHAMCS%2F2006%2F2006ERVisit10593.html

Form Approved: OMB No. 0920-0278

FORM: NHAMCS-100(ED)

U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

PATIENT RE

PATIENT NA

NATIONAL HOSPITAL AMBULATORY MEDICAL CARE SURVEY
2009 EMERGENCY DEPARTMENT PATIENT RECORD

Assurance of Confidentiality - All information which would permit identification of an individual, a practice, or an establishment will be held confidential, and will not be disclosed or released to other persons without the consent of the individual or establishment in accordance with section 909(d) of the Public Health Services Act (42 USC 242m) and the Confidential Information Protection and Statistical Efficiency Act (PL -107-347)

Over 70,000 emergency room records from the Center for Disease Control were crawled and ingested into CCA. These XML records contain both structured and unstructured data

1. PATIENT INFORMATION

a. Date of visit:		b. Wait time: 0016	f. Sex: Male	h. Reason for visit:		i. Medications:
c. Length of visit: 0211		d. Day of week: Saturday	g. Age: 018	Irregular heartbeat Nausea Foot and toe pain, ache, soreness, di... Abnormal pulsations and palpitations Nausea Foot and toe symptoms		PHENERGAN REGLAN ANAPROX DS
e. DOA: No						
Month	Day	Year				
07	01	2006				

2. DIAGNOSTIC TESTS PERFORMED

1 <input type="checkbox"/> None	11 <input type="checkbox"/> Extremity X-ray
2 <input checked="" type="checkbox"/> Urinalysis	12 <input type="checkbox"/> Other X-ray
3 <input checked="" type="checkbox"/> Pregnancy Test	13 <input checked="" type="checkbox"/> MRI
4 <input checked="" type="checkbox"/> HIV Serology	14 <input checked="" type="checkbox"/> Ultrasound
5 <input checked="" type="checkbox"/> EKG	15 <input checked="" type="checkbox"/> CAT scan
6 <input checked="" type="checkbox"/> Cariac Monitor	16 <input type="checkbox"/> Other diagnostic imaging
7 <input checked="" type="checkbox"/> Pulse oximetry	17 <input checked="" type="checkbox"/> Pulse oximetry
8 <input type="checkbox"/> Blood alcohol concentration	18 <input type="checkbox"/> Blood alcohol concentration
9 <input checked="" type="checkbox"/> CBC	19 <input checked="" type="checkbox"/> CBC
10 <input type="checkbox"/> Chest X-ray	20 <input type="checkbox"/> Chest X-ray

3. PHYSICIANS DIAGNOSIS

j. Diagnosis:	k. Cause of injury (broad):
Closed fracture of other metatarsal b... Nausea alone Palpitations (825) Fracture of one or more tarsal ... (787) Symptoms involving digestive sy... (785) Symptoms involving cardiovascul...	Other and unspecified environmental a...
l. Cause of injury: (verbatim)	
STEPPED ON ROCK INJURED FOOT	
m. Controlled substance:	n. Generic Drugs:
No control No control No control	

4. MEDICATIONS PRESCRIBED

Done

The documents view lets you browse all of the records matching your search criteria.

Search within results

Documents Facets Time Series Deviations Trends 2D

Results 1 - 10 of 3000 (71848 results matched)

View by file type: ALL Results per Page 10

You searched for "*:*"

Facet Navigation	Source	Relevance	Date	Title	Thumbnail
Filter: Clear	JDBC database	100.00%	7/1/06	2006ERVisit10593.h	Other and unspecified environmental a... Single entity drug Single entity drug Single entity drug No control No control No control Closed fracture of other metatarsal b...
Part of Speech	JDBC database	100.00%	7/1/06	2006ERVisit10592.h	Accidents caused by cutting and pier... Single entity drug Combination drug Single entity drug Combination drug Single entity drug No control No control No control No control No control No control Open wound of toe(s), without mention...
Phrase Constituent	JDBC database	100.00%	7/1/06	2006ERVisit10591.h	Other injury caused by animals Single entity drug No control Opn wound of hand except finger(s) alo... Other cellulitis and abscess of hand,...
Month of visit	JDBC database	100.00%	7/1/06	2006ERVisit10590.h	Accidents caused by machinery Single entity drug Single entity drug No control No control Blisters, epidermal loss [2nd degree]... (944) Burn of wrist(s) and hand(s)
Year of visit	JDBC database	100.00%	7/1/06	2006ERVisit10589.h	Inhala/ingest of following other t... esophagus ASA... swallowing (dysphagia)
Day of week of visit - recoded	JDBC database	100.00%	7/1/06	2006ERVisit10588.h	Accidents caused by machinery Single entity drug Single entity drug No control No control Multip/unspec NEOSPORIN TYLENOL Prescription drug
Time of visit - military time	JDBC database	100.00%	7/1/06	2006ERVisit10587.h	Striking against ... LORTAB Prescription drug Other symptoms of nose Headache, pain in head Fainting (syncope) Other symptoms of nose Headache, pain in head Fainting (syncope)
Patient age in years	JDBC database	100.00%	7/1/06	2006ERVisit10586.h	

The facets on the left hand side show you all of the dimensions that were extracted from the data. These include pre-existing structured data, as well as snippets of unstructured text such as meaningful phrases and entities.

[Help for query syntax](#)

Search Clear ?

Search within results

Saved Searches (0) | Advanced Search | Query Tree

Documents | Facets | Time Series | Deviations | Trends | 2D Map

Results 1 - 10 of 3000
(71848 results matched)

You searched for "*:*"

Facet Navigation

Filter:

Clear

- ▶ Part of Speech
- ▶ Phrase Constituent
- Month of visit
- Year of visit
- Day of week of visit - recoded
- Time of visit - military time
- Patient age in years
- Patient sex
- Patient race - recoded
- Waiting time to see physician (in minutes)
- Primary expected source of payment for this visi**
- Were medications/injections ordered/provided?
- Generic drugs
- Brand name drugs
- Immediacy with which patient should be seen**
- Geographic region of hospital
- Is visit related to injury or poisoning?
- Intentionality of injury from checkbox
- Verbatim cause of injury
- Mental status exam

Flat | Bird | Table

Rows = Primary expected source of payment for this visi

Rows Show:

Columns = Immediacy with which patient should be seen

Columns Show:

Subfacets/ keywords	Less than 15 minutes 1110	15- 60 minutes 2597	>1 hour - 2 hours 1464	
Private insurance 27935	446 0.9	1136 1	614 1	328 0.9
Self-pay 11928	200 0.9	452 0.9	266 0.9	174 1.1
Medicaid 8089	114 0.7	301 0.9	194 1	108 0.9
Medicare 7777	141 0.9	263 0.8	126 0.6	62 0.5
Medicaid/SCHIP 4610	0 0	0 0	0 0	0 0
Workers compensation 4062	73 0.9	219 1.3	129 1.2	78 1.3
Other 2352	59 1.2	73 0.6	69 1.1	22 0.5
No charge 327	2 0	4 0.1	1 0	6 0.4
All sources of payment 111	0 0	0 0	0 0	0 0
No charge/charity 107	0 0	0 0	0 0	0 0
No charge/ charity 73	0 0	0 0	0 0	0 0

The **2D Map** shows relationships between two facets. In this case, between expected payment type and triaged immediacy. We see both the **frequencies** of co-occurrence as well as the **correlations** (which factor out normal distributions in the data). Here, there are no anomalies highlighted implying that people are triaged the same regardless of expected payment type.

[Help for query syntax](#)

Search Clear ?

Search within results

Saved Searches (0) Advanced Search Query Tree

Documents Facets Time Series Deviations Trends 2D Map

Results 1 - 10 of 3000
(71848 results matched)

You searched for "*:*"

Facet Navigation

Filter:

Clear

- ▶ Part of Speech
- ▶ Phrase Constituent
- Month of visit
- Year of visit
- Day of week of visit - recoded
- Time of visit - military time
- Patient age in years
- Patient sex
- Patient race - recoded
- Waiting time to see physician (in minutes)
- Primary expected source of payment for this visit
- Were medications/injections ordered/provided?
- Generic drugs
- Brand name drugs
- Immediacy with which patient should be seen
- Geographic region of hospital
- Is visit related to injury or poisoning?
- Intentionality of injury from checkbox
- Verbatim cause of injury
- Mental status exam

Flat Bird Table Rows = Primary expected source of payment for this visit Rows Show: Keywords Columns = Brand name drugs Columns Show: Keywords Filter Rows: Filter Columns:

Subfacets/keywords	MOTRIN 5346	TYLENOL 3995	VICODIN 3435	IBUPROFEN 2691	TORADOL 1928	TETANUS TOX...	KEFLEX 1577	LORTAB 1429	PERCOCE 1249
Private insurance 27935	2297 1.1	1655 1	1424 1	1159 1	668 0.8	636 0.9	610 0.9	523 0.8	504 0.9
Self-pay 11928	870 0.9	542 0.7	643 1	445 0.9	414 1.1	292 0.9	297 1	321 1.2	233 1
Medicaid 8089	658 1	563 1.1	278 0.6	253 0.7	188 0.7	120 0.5	188 0.9	130 0.6	81 0.4
Medicare 7777	169 0.2	425 0.9	353 0.8	96 0.3	222 0.9	218 1	130 0.6	131 0.7	132 0.8
Medicaid/SCHIP 4610	408 1.1	245 0.8				99 0.4	91 0.7	77 0.6	79 0.7
Workers compen 4062	335 1	161 0.6				77 0.6	108 0.9	106 1	108 1.2
Other 2352	211 1	135 0.8	0.9	1	0.6	0	39 0.5	43 0.6	37 0.6
No charge 327	26 0.6	26 0.9	14 0.5	11 0.4	6 0.2	9 0.5	10 0.6	16 1.3	6 0.3
All sources of pa 111	8	4	4	3	3	1	1	2	2
No charg 107					0.1	0	0	0.1	0.1
No charg 73					6 0.6	2 0.1	4 0.3	10 2.1	4 0.4
					1 0	1 0	4 0.5	2 0.1	2 0.1

High correlations are highlighted in shades of yellow and orange.

In this 2D Map, we've switched to look at expected payment type vs. brand name drugs prescribed.



[Help for query syntax](#)

Search Clear ?

 Search within results

Saved Searches (0)

Advanced Search

Query Tree

Documents Facets Time Series Deviations Trends 2D Map

Results 1 - 10 of 3000
(71848 results matched)

You searched for "*:*"

Facet Navigation

Filter:

Clear

- Part of Speech
- Phrase Constituent
- Month of visit
- Year of visit
- Day of week of visit - recoded
- Time of visit - military time
- Patient age in years
- Patient sex
- Patient race - recoded
- Waiting time to see physician (in minutes)
- Primary expected source of payment for this visit
- Were medications/injections ordered/provided?
- Generic drugs
- Brand name drugs
- Immediacy with which patient should be seen
- Geographic region of hospital
- Is visit related to injury or poisoning?
- Intentionality of injury from checkbox
- Verbatim cause of injury
- Mental status exam

Flat Bird Table

Rows = Primary expected source of payment for this visi

Rows Show:

Keywords

Columns = Brand name drugs

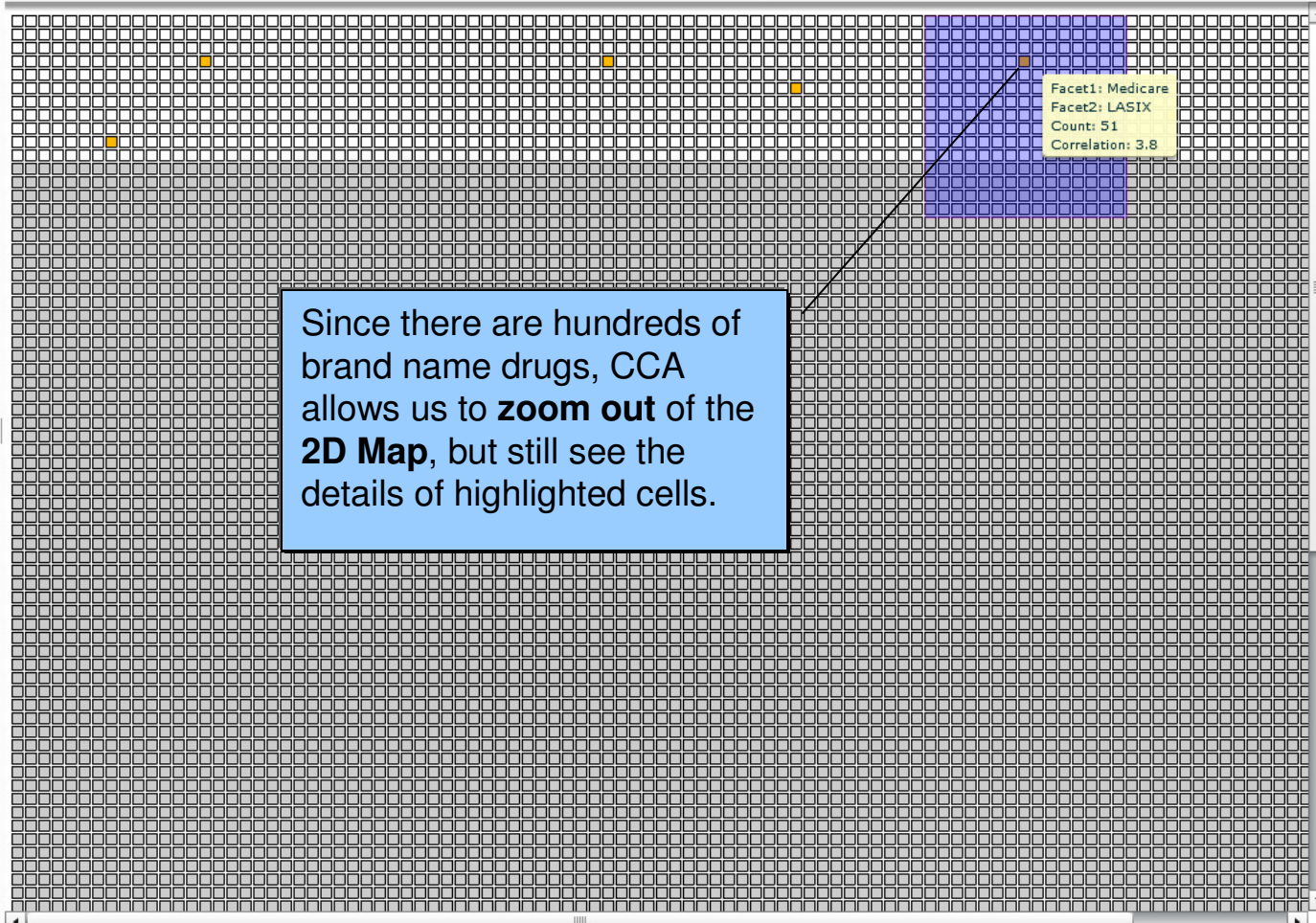
Columns Show:

Keywords



Filter Rows:

Filter Columns:



Since there are hundreds of brand name drugs, CCA allows us to **zoom out** of the **2D Map**, but still see the details of highlighted cells.

[Help for query syntax](#)

Search Clear ?

Search within results

Saved Searches (0) Advanced Search Query Tree

Documents Facets Time Series Deviations Trends 2D Map

Results 1 - 10 of 3000
(71848 results matched)

You searched for "*:*"

Facet Navigation

Filter:

Clear

- ▶ Part of Speech
- ▶ Phrase Constituent
- Month of visit
- Year of visit
- Day of week of visit - recoded
- Time of visit - military time
- Patient age in years
- Patient sex
- Patient race - recoded
- Waiting time to see physician (in minutes)
- Primary expected source of payment for this visit**
- Were medications/injections ordered/provided?
- Generic drugs
- Brand name drugs**
- Immediacy with which patient should be seen
- Geographic region of hospital
- Is visit related to injury or poisoning?
- Intentionality of injury from checkbox
- Verbatim cause of injury
- Mental status exam

Flat Bird Table Rows = Primary expected source of payment for this visit Rows Show: Keywords Columns = Brand name drugs Columns Show: Keywords Filter Rows: Filter Columns:

Subfacets/keywords	LIDOCAINE H...	VIOXX 97	ERYTHROMYC...	PEPCID 93	SALINE 91	LASIX 88	CELEBREX 87	TYLOX 85	ALEVE 84
Private insurance 27935	53 1	39 0.7	39 0.7	31 0.6	37 0.7	19 0.3	32 0.6	25 0.5	40 0.8
Self-pay 11928	12 0.4	7 0.1	17 0.6	26 1	13 0.4	1 0	9 0.3	27 1.2	13 0.5
Medicaid 8089	12 0.5	10 0.4	12 0.6	6 0.2	9 0.4	10 0.5	10 0.5	11 0.5	7 0.2
Medicare 7777	6 0.2	21 1.2	1 0	15 0.8	14 0.7	51 3.8	27 1.8	6 0.2	4 0.1
Medicaid/SCHIP 4610	2 0	0 0	4 0.1	5 0.2	9 0.7	4 0.1	0 0	1 0	1 0
Workers comper 4062	6 0.3	11 0.9	11 1	2 0	0 0	1 0	6 0.3	6 0.3	13 1.4
Other 2352	2 0	3 0	1 0	1 0	2 0	0 0	0 0	6 0.6	0 0
No d 327					0 0	0 0	1 0	0 0	2 0.4
All s 111					1 0.1	0 0	0 0	0 0	0 0
No d 107					0 0	0 0	0 0	0 0	0 0
No d 73					0 0	0 0	0 0	0 0	0 0

When we zoom back in to our area of interest, we can see that **LASIX** is highly correlated with **Medicare** patients. We can **drill-down** our search to focus on just these records.



[Help for query syntax](#)

: /keyword\$.PAYTYPE/"Medicare" /keyword\$.MED1/"LASIX"

Search Clear ?

Search within results

Saved Searches (0)

Advanced Search

Query Tree

Documents Facets Time Series Deviations Trends 2D Map

Results 1 - 10 of 51
(51 results matched)

You searched for ":* /keyword\$.PAYTYPE/"Medicare" /keyword\$.MED1/"LASIX"

Facet Navigation

Filter:

Clear

Part of Speech

Noun

Verb

Adjective

Adverb

Conjunction

Interjection

Numeral

Phrase Constituent

Month of visit

Year of visit

Day of week of visit - recoded

Time of visit - military time

Patient age in years

Patient sex

Patient race - recoded

Waiting time to see physician (in minutes)

Primary expected source of payment for this visit

Were medications/injections ordered/provided?

Generic drugs

Brand name drugs

Immediacy with which patient should be seen

Show: Keywords Filter:

Keywords	Frequency	Correlation
LASIX	46	248.2
FUROSEMIDE	41	222.1
diuretic	13	168.0
heart	13	95.8
failure	13	92.0
ISOSORBIDE	3	84.5
vomitus	3	67.0
due	3	67.0
Pneumonitis	3	65.0
solid	3	
DIGOXIN	4	
nitroglycerine	5	
solution	7	
replacement	7	
I	3	
bromide	3	
AMLODIPINE	3	
NORVASC	3	
PAXIL	3	
food	3	
PAROXETINE	3	
potassium	7	
shortness	8	21.9
breath	8	21.9
blocker	4	20.5

Once we've drilled down, we can switch over to the **Facets** view and see all of the **most highly correlated concepts** (in this case Nouns) for our current search (Medicare patients receiving LASIX).

It looks like LASIX is a diuretic that is preferentially prescribed in Medicare patients for treatment of certain types of heart failure.



[Help for query syntax](#)

eye

Search Clear ?

Search within results

Saved Searches (0) Advanced Search Query Tree

Documents Facets Time Series Deviations Trends 2D Map

Results 1 - 10 of 2474
(2474 results matched)

View by file type: ALL Results per Page 10

You searched for "eye"

Facet Navigation

Filter:

Clear

Part of Speech

Noun

Verb

Adjective

Adverb

Conjunction

Interjection

Numeral

Phrase Constituent

Month of visit

Year of visit

Day of week of visit - recorded

Time of visit - military time

Patient age in years

Patient sex

Patient race - recorded

Waiting time to see physician (in minutes)

Primary expected source of payment for this visit

Were medications/injections ordered/provided?

Generic drugs

Brand name drugs

Immediacy with which patient should be seen

Source	Relevance	Date
JDBC database	90.26%	4/1/01
eye Conjunctivitis, unspecified (379) Other disorders of eye (372) Disorders of conjunctiva Antide itching Discharge from eye--pus, matter, whit... Discharge from eye Abnormal sensations of ... fro		
JDBC database	90.21%	11/1/06
eye Injury, other and unspecified, of eye Eye pain Abnormal color of eyes Abnormal sensations of		
JDBC database	88.28%	6/1/06
2006ERVisit8895.html III Other ill-defined disorders of eye Superficial injury of cornea (379) Other disorders of eye (918) Superficial ... drug Foreign body in eye Eye pain Swelling of eyes Abnormal sensations of the eye Other symptoms referable to eye, NEC ...		
JDBC database	86.93%	8/1/06
2006ERVisit9421.html ... Foreign body accidentally entering ey... Foreign body of unspecified site of eye (930) Foreign body on external ... Foreign body in eye Eye pain Abnormal sensations of the eye ...		
JDBC database	86.93%	9/1/06
... Foreign body accidentally entering ey... Foreign body of unspecified site of eye (930) eye Abnormal sensations of the eye ...		
JDBC database	86.93%	5/1/06
site of eye (930) Foreign body on external eye OFLOXACIN Prescription drug Foreign b		
JDBC database	86.24%	8/1/06
2006ERVisit4160.html ... Other specified disorders of eye and ... Foreign body of unspecified site of eye (379) Other disorders of eye (930 ... body on external eye Eye pain Foreign body in eye Accident, NOS Abnormal sensations of the eye ...		
JDBC database	86.24%	1/1/01
2001ERVisit1586.html periocular area Foreign body of unspecified site of eye (379) Other disorders of eye (921) Contusion of eye and adnexa ... Foreign body on external eye Analgesics, narcotic FIXED COMBINATION No PERCOCET-5 Prescription drug ... of facial area Abnormal sensations of the eye ...		
JDBC database	86.24%	11/1/03
2003ERVisit5565.html control Superficial injury of cornea (918) Superficial injury of eye and a... UNDETERMINED No ARTIFICIAL TEAR ... eye--tearing, watering... Eye itching Abnormal sensations of the eye Discharge from eye Abnormal sensations of the ...		
JDBC database	86.24%	4/1/03
2003ERVisit3790.html		

In addition to browsing and navigating for insights, CCA allows you to **issue direct queries against the data.**

All matching documents are returned, and all of our **views are now updated** to reflect only the matching records.



[Help for query syntax](#)

eye

Search Clear ?

Search within results

Saved Searches (0) Advanced Search Query Tree

Documents Facets Time Series Deviations Trends 2D Map

Results 1 - 10 of 2474
(2474 results matched)

You searched for "eye"

Facet Navigation

Filter:

Clear

Part of Speech

Noun

Verb

Adjective

Adverb

Conjunction

Interjection

Numeral

Phrase Constituent

Month of visit

Year of visit

Day of week of visit - recoded

Time of visit - military time

Patient age in years

Patient sex

Patient race - recoded

Waiting time to see physician (in minutes)

Primary expected source of payment for this visit

Were medications/injections ordered/provided?

Generic drugs

Brand name drugs

Immediacy with which patient should be seen

Show: Keywords Filter:

Keywords	Frequency	Correlation
cornea	627	29.4
eye	2138	29.2
ey	694	29.2
ALCAINE	100	28.8
fluorescein	65	28.5
PROPARACAINE	136	28.4
SULFACETAMIDE	66	
TOBEX	82	
anti-inflammatory	111	
eyeball	81	
TOBRAMYCIN	118	
appearance	130	
conjunctivitis	157	
conjunctiva	247	
color	128	24.1
gentamicin	187	23.1
adnexa	464	23.0
eyelid	122	22.6
discharge	92	15.8
sensation	691	15.2
erythromycin	208	14.3
vision	108	13.0
tetracaine	153	12.2
body	856	11.8
anti	205	9.8

The Facets view shows us all the highly correlated terms found in the results for our search for "eye". Notice that "cornea" has a high correlation.



[Help for query syntax](#)

eye

Search Clear ?

Search within results

Saved Searches (0) Advanced Search Query Tree

Documents Facets Time Series Deviations Trends 2D Map

Results 1 - 10 of 2474
(2474 results matched)

You searched for "eye"

Facet Navigation

Filter:
Clear

Part of Speech

- Noun
- Verb
- Adjective
- Adverb
- Conjunction
- Interjection
- Numeral

Phrase Constituent

- Month of visit
- Year of visit
- Day of week of visit - recoded
- Time of visit - military time

Patient age in years

Patient sex

Patient race - recoded

Waiting time to see physician (in minutes)

Primary expected source of payment for this visit

Were medications/injections ordered/provided?

Generic drugs

Brand name drugs

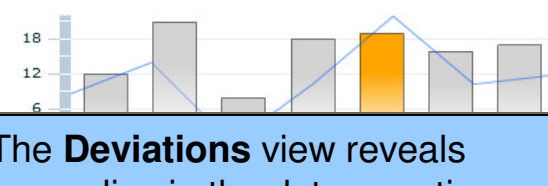
Immediacy with which patient should be seen

Show: Keywords Filter: Sort: Frequency Time scale: Year Index Amount: Least Most

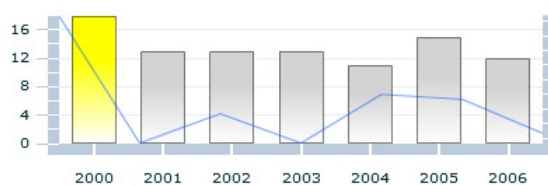
VICODIN (113)



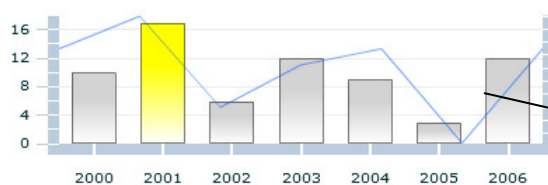
TETRACAINE (111)



TYLENOL (95)



GENTAMICIN OPHTHALMIC (69)



ERYTHROMYCIN OPHTHALMIC (65)



The **Deviations** view reveals anomalies in the data over time on a per-facet basis.

Here we're looking at the brand name drugs most often prescribed over time for all records matching our search for the term "eye".

Antibiotics like GENTAMICIN OPHTHALMIC and ERYTHROMYCIN OPHTHALMIC stand out. And **in certain years, one is favored over the other.**

[Help for query syntax](#)

eye

Search Clear ?

Search within results

Saved Searches (0)

Advanced Search

Query Tree

Documents Facets Time Series Deviations Trends 2D Map

Results 1 - 10 of 2474
(2474 results matched)

You searched for "eye"

Facet Navigation

Filter:

Clear

Part of Speech

Noun

Verb

Adjective

Adverb

Conjunction

Interjection

Numeral

Phrase Constituent

Month of visit

Year of visit

Day of week of visit - recorded

Time of visit - military time

Patient age in years

Patient sex

Patient race - recoded

Waiting time to see physician (in minutes)

Primary expected source of payment for this visit

Were medications/injections ordered/provided?

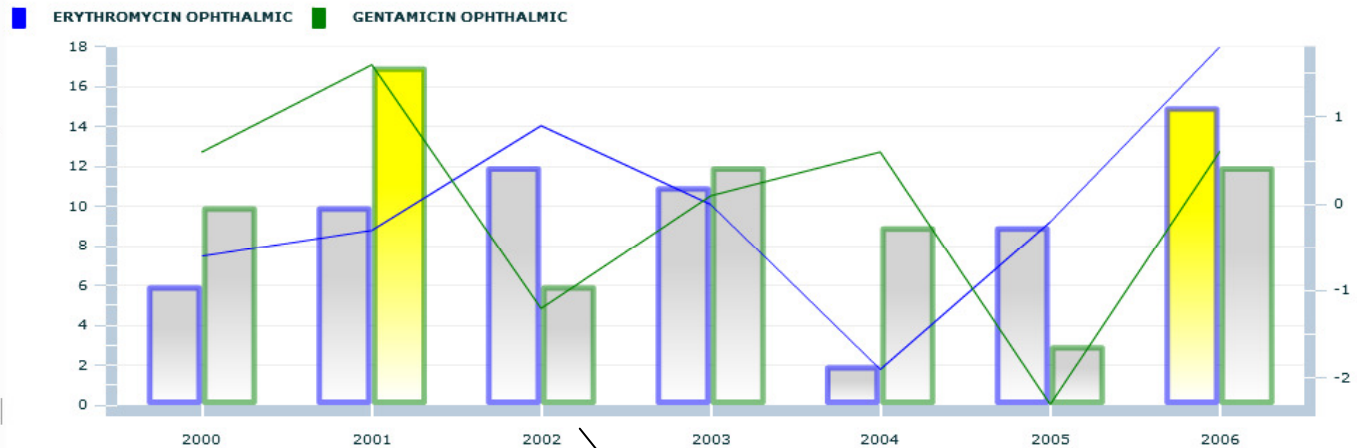
Generic drugs

Brand name drugs

Immediacy with which patient should be seen

Show: Keywords Filter: Sort: Frequency Time scale: Year Index Amount: Least Most

Charts per page:



We can also see a **side-by-side view** of these two drugs over time, making comparisons easier.