

# Topics

- **Health Information Technology Motivators**
- **Examples of Solutions**
- **Deployment of Solutions**
- **From Information to Transformation**

# HIT Motivators



- Compliance
- Quality – Improve Care
- Profitability – Improve Performance

# Compliance – HIT Standards

To date, the federal Health Information Technology Standards Panel has endorsed *four primary Nursing Home HIT standards*:

1. *The Patient Assessment Questionnaire Framework* allows for the capture and exchange of data for such functional assessment questionnaires as the Minimum Data Set (MDS).
2. *The HL-7 Continuity of Care Document (CCD)* allows for the exchange of patient summaries at the time of transfer between care settings.
3. *NCPDP Script 10.6* allows physician medication order entry, e-prescribing and the exchange of pharmacy data.



# Compliance - HIT Standards

4<sup>th</sup> Standard *Coming Soon!*

The LTPAC Collaborative, a coalition of organizations that promotes HIT adoption among long-term and post-acute care providers, is represented on two federal HIT decision-making bodies: The Health Information Policy Committee and the Certification Commission for Health Information Technology (CCHIT), which will finalize its certification criteria for long-term and post-acute EHRs in late summer 2010. Once CCHIT puts these criteria into practice in Oct. 2010, providers of long-term and post-acute care will have access to interoperable EHR systems designed specifically for their care sector.

# Compliance - HIT Standards

“...skilled nursing and assisted living organizations will be expected to have an EHR infrastructure in place and ready to go.

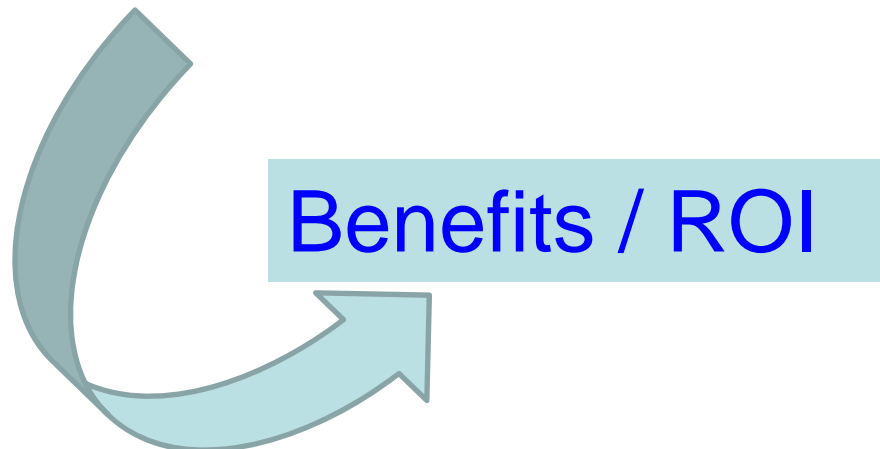
Many facilities have already computerized some of their functions, so the progression to complete automation makes good business sense.”

John Sheridan, President and CEO of Cleveland-based eHealth Data Solutions.

# HIT Motivators



- ~~Compliance~~
- Quality – Improve Care
- Profitability – Improve Performance



# Benefits / ROI

- The single most frequently-cited benefit for nursing home staff is substantially improved access to health information afforded by an EMR.

This access to electronic records was sharply contrasted to locating and retrieving the single copy of the resident's paper chart, which may be in use by another individual, requiring not only the time to find and retrieve the record but also delays in waiting for the record to become available.

Able to immediately access the chart in a nursing home when receiving a call from the family or the physician.

Access to health records from remote locations without traveling to the facility.

# Benefits / ROI

- A second benefit that is frequently cited in ROI studies is greater efficiency and accuracy when using integrated financial and clinical solutions.

Bills are automatically generated from clinical information entered into the EMR leading to shorter billing cycles. Information used for payment was reported to be more accurate with automated edit checks, and ensured that services that were provided were billed and that billed services were provided. Claims denials and resubmissions are reduced.

MDS data more accurate and timely.

Administrative staff does not need to enter information that could be automatically pulled from the EHR.



# Benefits / ROI

- A third benefit is improved quality management through reports, alerts, and decision-support tools..

Electronic reports to routinely track status.

Alerts that identify specific residents with a more immediate concern.

Dashboards that allow for management by exception.

Enables early intervention to prevent problems like falls, weight decline, skin breakdown, and hospitalization.

# Benefits / ROI



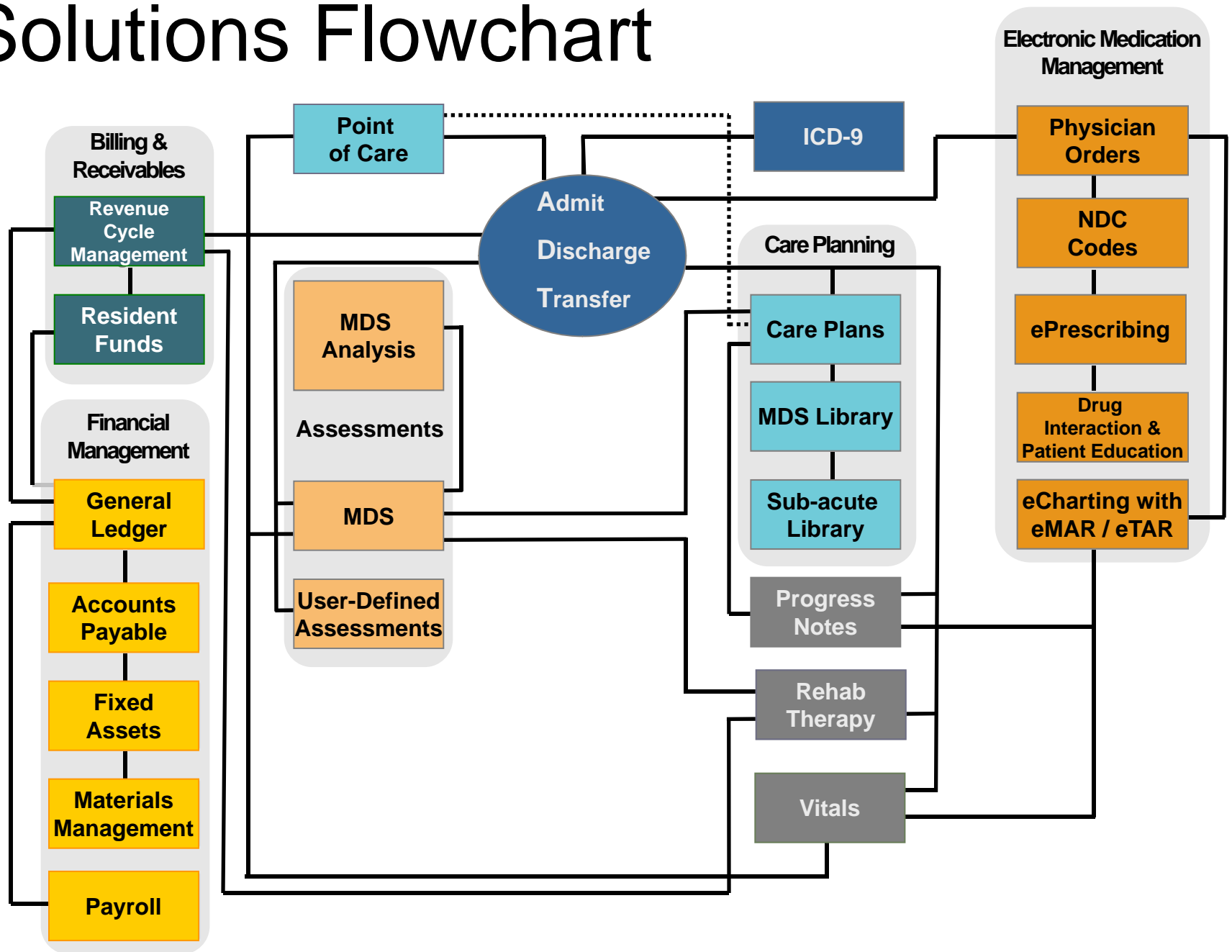
U.S. Department of Health and Human Services  
Assistant Secretary for Planning and Evaluation  
Office of Disability, Aging and Long-Term Care Policy

## **UNDERSTANDING THE COSTS AND BENEFITS OF HEALTH INFORMATION TECHNOLOGY IN NURSING HOMES AND HOME HEALTH AGENCIES:**

### **CASE STUDY FINDINGS**

June 2009

# Solutions Flowchart



**CURRENT LOCATION:** 1 1 258 D  
**HEALTH RECORD #:** 337043  
**ACCOUNT #:** 10399  
**DATE OF BIRTH:** 01/23/1950  
**GENDER:** Male



ADMISSION	DISCHARGE	TYPE	ACCOUNT #	HR #
→ 02/19/2008		IP	10399	337043

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[View visit information](#) [New visit](#) [ClinReadmit](#)

**VISIT INFORMATION FOR ADMISSION: 02/19/2008**

**▼ CENSUS INFORMATION**

FROM DATE	THRU DATE	LOCATION	BED TYPE	STATUS	LEVEL OF CARE	HOLD TYPE	BU/PL
04/14/2009		1 1 258 D	B		300 (MCD SK)		1ST
02/07/2009	04/13/2009	1 1 250 P	B		500 (AAA)		1ST
02/03/2009	02/06/2009	1 1 250 P	B	H	500 (AAA)	Hospital	1ST
03/20/2008	02/02/2009	1 1 250 P	B		500 (AAA)		1ST
03/04/2008	03/19/2008	1 1 250 P	B		540 (RVB)		1ST

**▼ REIMBURSEMENT INFORMATION**

PLAN	PAYOR	TYPE	START DATE	END DATE
MEDICARE A PPS	Med A PPS	Medicare	01/03/2008	
MCR A NO PAY 10/01/06 3	Med A PPS	Medicare	02/19/2008	
MEDICARE B	Medicare B	Medicare	02/19/2008	
PRIVATE PAY	Gua0006744	Guarantor	02/19/2008	

**▼ CLINICAL INFORMATION**

DIAGNOSIS	ICD-9	DX TYPE	BILL SEQ	CLINICAL
Symptoms involving nervous and musculoskeletal sys	781.2	P-B	1	1
Aftercare following joint replacement. Use additio	V54.81	P-B	2	2
Organ or tissue replaced by other means, hip	V43.64	P-B	3	3
Other mechanical complication of prosthetic joint	996.47	P-B	4	4
Essential hypertension, unspecified	401.9	P-B	5	5

PHYSICIAN NAME	CATEGORY	RANK
Kegler, Kim	Attending	
Fuller, Rosario	Referring	1

ALLERGY	REACTION
ANESTHESIA	

Charting Snapshot | ABBOTT, AMY | HR# 1005 | ACCT# 743 | IP VISIT FOR 08/28/2007

**CURRENT LOCATION:** SNFA261  
**HEALTH RECORD #:** 1005  
**ACCOUNT #:** 743  
**DATE OF BIRTH:** 01/23/1936  
**GENDER:** Female



	ADMISSION	DISCHARGE	TYPE	ACCOUNT #	HR #
	08/28/2007		IP	743	1005
<a href="#">SELECT</a>	10/30/2006	12/23/2006	IP	743	1005
<a href="#">SELECT</a>	09/19/2006	10/06/2006	IP	743	1005
<a href="#">SELECT</a>	04/20/2005	09/27/2005	OP	743	1005
<a href="#">SELECT</a>	03/17/2004	04/28/2004	IP	743	1005

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VISIT INFORMATION FOR ADMISSION: 08/28/2007

▼ CENSUS INFORMATION

FROM DATE	THRU DATE	LOCATION	BED TYPE	STATUS	LEVEL OF CARE	HOLD TYPE	BU/PL
04/02/2008		SNFA261	B	H	400 (SNF)	Hospital	SNF
08/28/2007	04/01/2008	SNFA261	B		400 (SNF)		SNF

▼ INTERDISCIPLINARY PROGRESS NOTES

LAST 7 DAYS

DATE	TIME	TYPE	NOTE	CP #
<a href="#">04/07/2008</a>	14:56	G	O-Res. is up in chair most of the day. Ambulate with...	011

O-Res. is up in chair most of the day. Ambulate with one person assist and FWW approx. 50-75 feet. Requires frequent rest periods. Gait is steady but becomes tired easily then exhibits a scissor gait and tends to drift to the left. Has some difficulty controlling walker at times. No falls in the past 30 days. Some foot drop noted.

▼ PHYSICIAN ORDERS

ACTIVE

ORDER DATE	CODE	TIME	NOTE	D/C Date
<a href="#">04/07/2008</a>	DEP	QD	A-Continues to require restorative program for strengthening and gait training. PT eval done and FMP completed. Program to run 7 days a week.	
<a href="#">03/31/2008</a>	PRNM	PRN	P-Continue current plan of care. Assess for increased pain.	
<a href="#">03/31/2008</a>	RTNM	QID	Get referral for possible splint/AFO for right leg....	
<a href="#">11/28/2006</a>	INSULI	QD	Humalog Mix 75/25 75U/ml-25U/ml Sus (Insulin Lispro/...	

EDIT	DEL	SEQ	PLAN NAME	PAYOR	TYPE	START DATE	END DATE	VOID	INTERNAL
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10	Medicare A	Medicare A	Medicare	11/20/1997		NO	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	20	Medicare B- Therapies & Urologicals	Medicare B	Medicare	11/20/1997		NO	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	30	Guarantor Co-Insurance	Gua0001638	Guarantor	11/20/1997		NO	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	40	Guarantor	Gua0001638	Guarantor	11/20/1997		NO	

**PLAN INFORMATION**

Plan name: \* Medicare A    Sequence: \* 10

Plan start date: \* 11/20/1997    Qualified hospital stay: ST Mary's

Plan end date:    Admit date: 11/01/1997

Prior days used: 0    Discharge date: 11/19/1997

Prior dollars used: \$0.00    Void account plan?  Yes  No

Deductible paid: \$0.00

**POLICY DETAILS**

Group number:    Release information?  Yes  No

Group name:    Assign benefits?  Yes  No

Policy holder ID:    Signature source code: B

**POLICY HOLDER**

Policy holder is?  Resident  Other

Last name:    Address: 123 Pennsylvania ave

First name: Paul

Middle initial:    Title:    City: Columbus

Gender: Male    State: OH    Zip: 13242

Date of birth: 03/23/1913 (Age: 92)    Phone:

ANSI relationship code:    1500 Box#/Other code:

**EMPLOYMENT INFORMATION**

Employment status:    Address:

Employer name:    City:

Employment info:    State:    Zip:

- COMMON TASKS** ▾
- Select Resident
- Select Facility
- Follow-up
- E-mail
- Help
- Sign Out
- ADT** ▾
- Snapshot
- Registration
- Transfer
- Hold
- Reserve
- Swap
- Discharge
- Location Status
- CHARTING** ▾
- Snapshot
- Assessments
- Care Plan
- Care Tracker
- Physician Orders
- Therapy
- Vitals
- ACCOUNTS** ▾
- Charge Orders
- Receipts
- Assessments
- Retro
- BILLING** ▾
- Calculate Charges
- Reset Account
- Generate Bills
- Paper Bills
- Electronic Bills

Search for:   [Add a problem/goal/intervention](#)  
[Suggested problems](#)

Expand all Collapse all PLAN OF CARE Total Problem =12

EDIT	DEL	ID NUMBER	STATEMENT	EFFECTIVE
		P-001	POTENTIAL FOR ADVERSE DRUG REACTIONS RELATED TO MULTIPLE MEDICATI...	07/20/2002
		P-002	POTENTIAL FOR ALLERGIC REACTIONS RELATED TO ALLERGY TO QUININE	01/07/2003
		P-003	POTENTIAL FOR UNEXPECTED BLEEDING OR BRUISING R/T DAILY ASA AND ...	07/01/2003
		P-004	IMPAIRED DECISION MAKING RELATED TO COGNITIVE LOSS; DXS INCLUDE D...	01/07/2003
		P-005	SELF CARE DEFICIT RELATED TO COGNITIVE LOSS, LIMITED DEXTERITY; D...	01/07/2003
		P-006	POTENTIAL FOR FALLS DUE TO COGNITIVE LOSS, POOR ENDURANCE, AND PO...	01/07/2003
		P-007	ALTERATION IN ELIMINATION RELATED TO OCCASIONAL URINARY INCONTINE...	01/07/2003
		P-008	ALTERATION IN COMFORT-PAIN OCCASIONAL BACK/SHOULDER DISCOMFORTS; ...	01/07/2003
		P-009	Potential for adverse drug reactions related to multiple medication orders. Resident receives Lortab with possible side effect of constipation. <b>Strengths:</b> Resident is able to ambulate to and from the toilet. <a href="#">Add goals</a> <a href="#">Add interventions</a> <a href="#">View resolution history</a>	03/01/2003
		G-01	Adverse drug reactions will be avoided, mimimized, or managed through next review. (LTG) <b>Review date:</b> 06/10/2003 <a href="#">Add goal progress notes</a>	03/01/2003
		G-02	Resident will have BM at least every 3 days through next review. (STG) <b>Review date:</b> 06/10/2003 <a href="#">Add goal progress notes</a>	03/01/2003
		I-0001	Monitor for adverse drug reactions; I.E.; anticholenergic-dry mouth, blurred vission, urinary vission, urinary retention, constipation. <b>Disciplines:</b> NA, LN, ACT	03/01/2003
		P-030	POTENTIAL FOR COMPLICATIONS DUE TO DX CHF; DXS ALSO INCLUDE ASHD,...	12/02/2002
		P-040	POTENTIAL FOR ALTERATION IN NUTRITION R/T DX OF DEMENTIA, ALZHEIM...	02/20/2003
		P-058	POTENTIAL FOR MOOD AND BEHAVIOR CONCERNS R/T MILD ALZHEIMERS AND ...	02/19/2003

[Update goal review dates](#)      [View Plan of Care Report](#)      [View Suggested Problems Report](#)  
[Update optional information](#)      [View Nursing Kardex Report](#)      [View Plan of Care Evaluation Report](#)

RESIDENT

PROSPECT

FACILITY

SYSTEM

USER

REPORTS

Gary

eCharting | HR# 3919 | ACCT# 2093 | IP VISIT FOR 08/27/1998

CURRENT LOCATION: 1125 001 C 00022 B

HEALTH RECORD #: 3919

ACCOUNT #: 2093

DATE OF BIRTH:  
GENDER:

PHYSICIAN: Holloway, Ralph W  
7615550026  
YELLOW FEVER VACCINE , DIAZOXIDE,  
ALLERGIES: YELLOW FEVER VACCINE , 2-BROMO-2-NITROPROPANE-1,3-DIOL  
ADV. DIRECTIVES: Living Will;DNR  
NURSING ALERT: DNR

[Specific Resident](#) [Scan Resident](#) [Print Barcodes](#) [PRN Results](#) [View Diagnoses](#) [Previous Resident](#) [Next Resider](#)

## eCHARTING INFORMATION FOR ADMISSION: 08/27/1998

## ▼ MEDICATIONS FOR 01:11 PM TO 05:11 PM - 01/22/2008

Hold  
meds

MEDICATION	TIME	PERFORMED	DOCUMENTATION	STATUS	REORDER
ZINC SULFATE 220 MG CAP Zinc Sulfate 1 PO QD DX: PRESSURE WOUND * DO NOT CRUSH*	08:00 AM	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Document...</a>	LATE History	<input type="checkbox"/>
NEURONTIN 300MG CAPSULE (GABAPENTIN) 2 PO TID DX: MULTIPLE SCLEROSIS (DOSE = 600 MG)	05:00 PM	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Document...</a>	History	<input type="checkbox"/>
ZANAFLEX 2 MG TAB Tizanidine Hydrochloride 1 PO BID DX: MUSCLE SPASMS	05:00 PM	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Document...</a>	History	<input type="checkbox"/>
LORCET 10/650 650 MG-10 MG TAB Acetaminophen/Hydrocodone Bitartrate 1 PO Q6HR DX: PAIN	06:00 PM	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Document...</a>	UPCOMING History	<input type="checkbox"/>
SMZ-TMP CONCENTRATE 80 MG/ML-16 MG/ML SOL (Sulfamethoxazole/Trimethoprim) 1 PO QID	06:00 PM	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Document...</a>	UPCOMING History	<input type="checkbox"/>
ZANAFLEX 4 MGTAB (TIZANIDINE HYDROCHLORIDE) 1 PO QD PRN MUSCLE SPASMS	Shift 1	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Document...</a>	SHIFT History	<input type="checkbox"/>
PROVIGIL 200 MG TAB (MODAFINIL) 1 PO Q AM PRN FALLING ASLEEP INAPPROPRIATELY	Shift 1	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Document...</a>	SHIFT History	<input type="checkbox"/>
CLARITIN 10 MG TAB (Loratadine) 1 PO Q DAY PRN ALLERGIES	Shift 1	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Document...</a>	SHIFT History	<input type="checkbox"/>

## ▼ PRN MEDICATIONS FOR 01/22/2008

MEDICATION	TIME	PERFORMED	DOCUMENTATION	STATUS	REORDER
TYLENOL 325MG TAB (ACETAMINOPHEN) 2 PO Q4HR PRN PAIN/ TEMP (DOSE =650 MG)	PRN	<input type="checkbox"/> Yes	<a href="#">Document...</a>	History	<input type="checkbox"/>
DULCOLAX SUPP 10MG (BISACODYL) 1 P/R QD PRN CONSTIPATION	PRN	<input type="checkbox"/> Yes	<a href="#">Document...</a>	History	<input type="checkbox"/>
LORCET 10/650 650 MG-10 MG TAB Acetaminophen/Hydrocodone Bitartrate 1 PO Q6HP PRN PAIN	PRN	<input type="checkbox"/> Yes	<a href="#">Document...</a>	History	<input type="checkbox"/>
PHENERGAN 25 MG TAB (Promethazine)					





Abram, Abby



Fink, Nicholas

# Please Enter Category



7/22/2008 1:59:06 PM



ADLs



Mood and Behavior



Bowel and Bladder



Meals and Snacks



Weights



Restorative



Charting




Skin



Vitals



Therapy

 [Back](#)

[Logout](#)

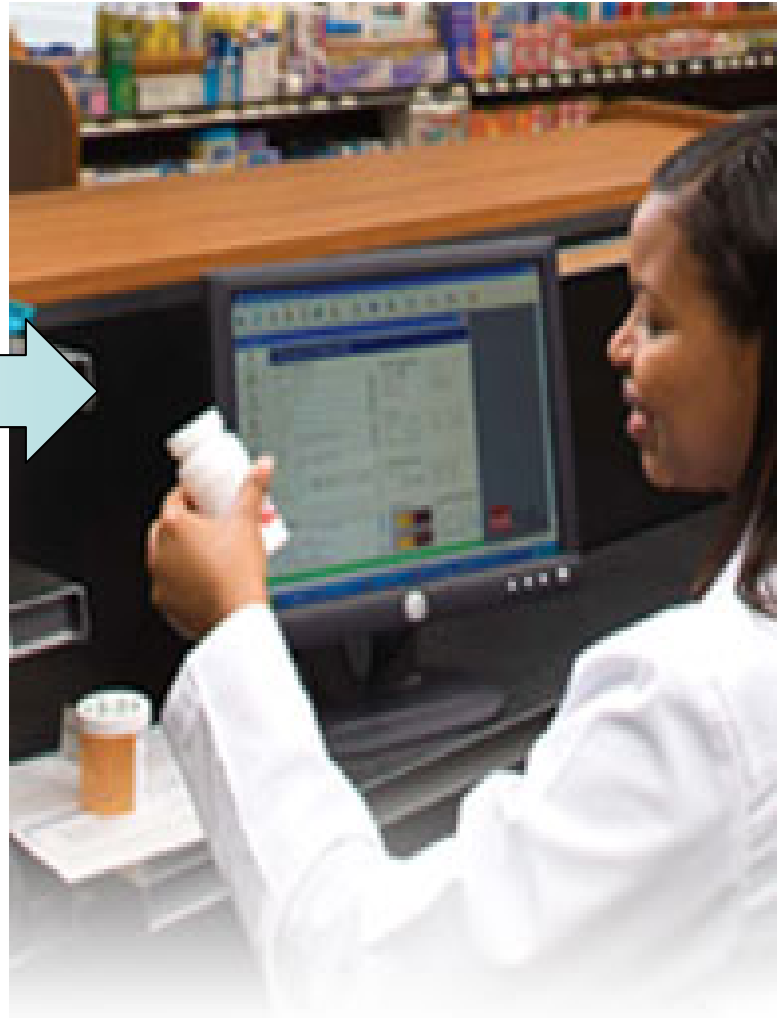
  [More Information](#)



# SaaS or Installed

- **SaaS / Rental** – allows you to buy-in slowly by reducing up-front costs and risks
- **Installed** – allows you to phase in the modules and reduces future costs based on ownership (TCO)







### Functional Outcome Scale - EARNESTINE, EARNESTINE(500004743)

Skill	Evaluation	Discontinued
Roll to Left	2 = Mod Assist	3 = Min Assist
Roll to Right	2 = Mod Assist	4 = Std by Ast
Supine to Sit	2 = Mod Assist	5 = Mod Indep
Sit to Supine	2 = Mod Assist	3 = Min Assist
Wheel Chair Mobility	2 = Mod Assist	3 = Min Assist
Brakes Management	2 = Mod Assist	4 = Std by Ast
to Stand	1 = Max Assist	5 = Mod Indep
ed To Sit	1 = Max Assist	6 = Independ
to Wheel Chair	1 = Max Assist	2 = Mod Assist
Chair to Bed	1 = Max Assist	3 = Min Assist
Surfaces	N = NA	N = NA
vey	N = NA	N = NA
ers	N = NA	N = NA



### PATIENT TREATMENT SUMMARY

Center: Nursing Center103  
 Date: 3/25/08  
 Patient: DONALD, DONALD  
 Therapist: CORINNA, CORINNA Physical Therapy  
 Discipline: Physical Therapy

CPT Code	Modifier	Minutes Description
97110		15Thera. Exercise(ea15min)
97122		16Neuromus. Re-ed(ea15min)
97122		16Gait Training(ea15min)

Shown with clinical grade All-in-One PC




Shown with clinical grade All-in-One PC



Tools like this analyze millions of data records collected by your staff, and quickly spots potential issues before they become a problem. Alerts indicate residents who aren't drinking or eating, having constipation issues, losing weight too fast, consistently declining in ADL performance, and more.

## Clinical Intelligence Dashboard

*Click the buttons below for detailed Information*



**Current Compliance:**  
**99%**  
3 Day Average: **98%**



**No BM**  
last 72 hours  
**7**  
Residents



**Avg. Meal Intake**  
<50% last 24 hours  
**2**  
Residents




**New Skin Issues**  
last 24 hours  
**0**  
Residents

**Two or More ADL Improvements**  
Averaged over 14 days

 # of Residents

.5 Point	<b>18</b>
1 Point	<b>6</b>

**Two or More ADL Declines**  
Averaged over 14 days

 # of Residents

.5 Point	<b>14</b>
1 Point	<b>5</b>

**Today's ADL Index**  
**Key: ADL Score-# of Residents**

4-3	8- 2	12-35	16-11
5-0	9- 2	13-41	17-9
6-6	10-20	14-26	18-9
7-4	11-38	15-57	

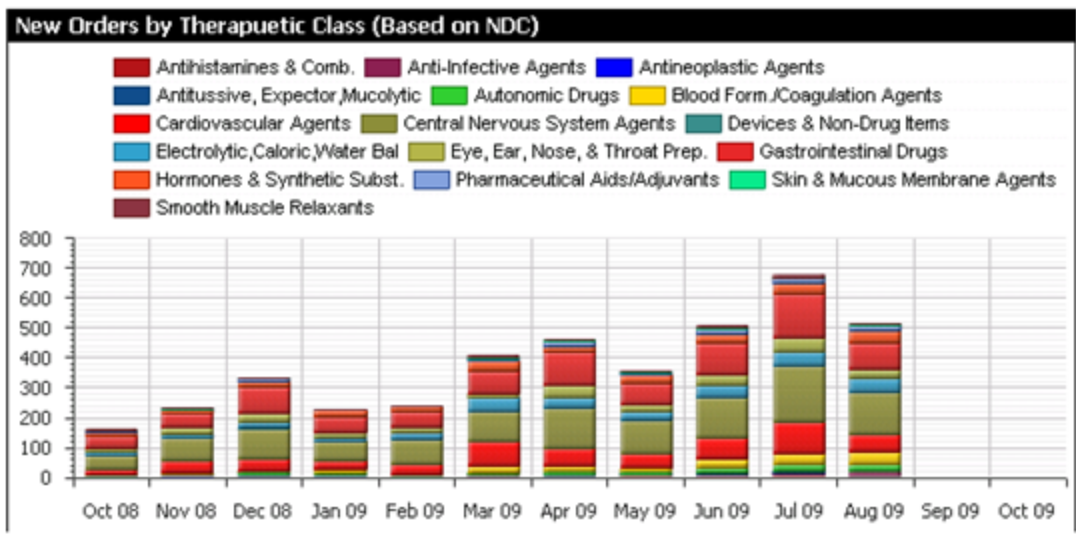
- Open dashboard
- Alerts
- Snapshot
- Census
  - Admissions
  - Discharges
  - Pending Discharges
- Charting
  - Assessments
  - Care Plans
  - IPN
  - Physician Orders
  - Order Administration
  - PRN Administration
- Accounts
  - Cash
  - Resident Cash
  - Miscellaneous Cash
- Billing
- A/R
- Funds
- Logout

Facility Turn off...
Order Type Turn off...
Order Code Turn off...
Time Code Turn off...

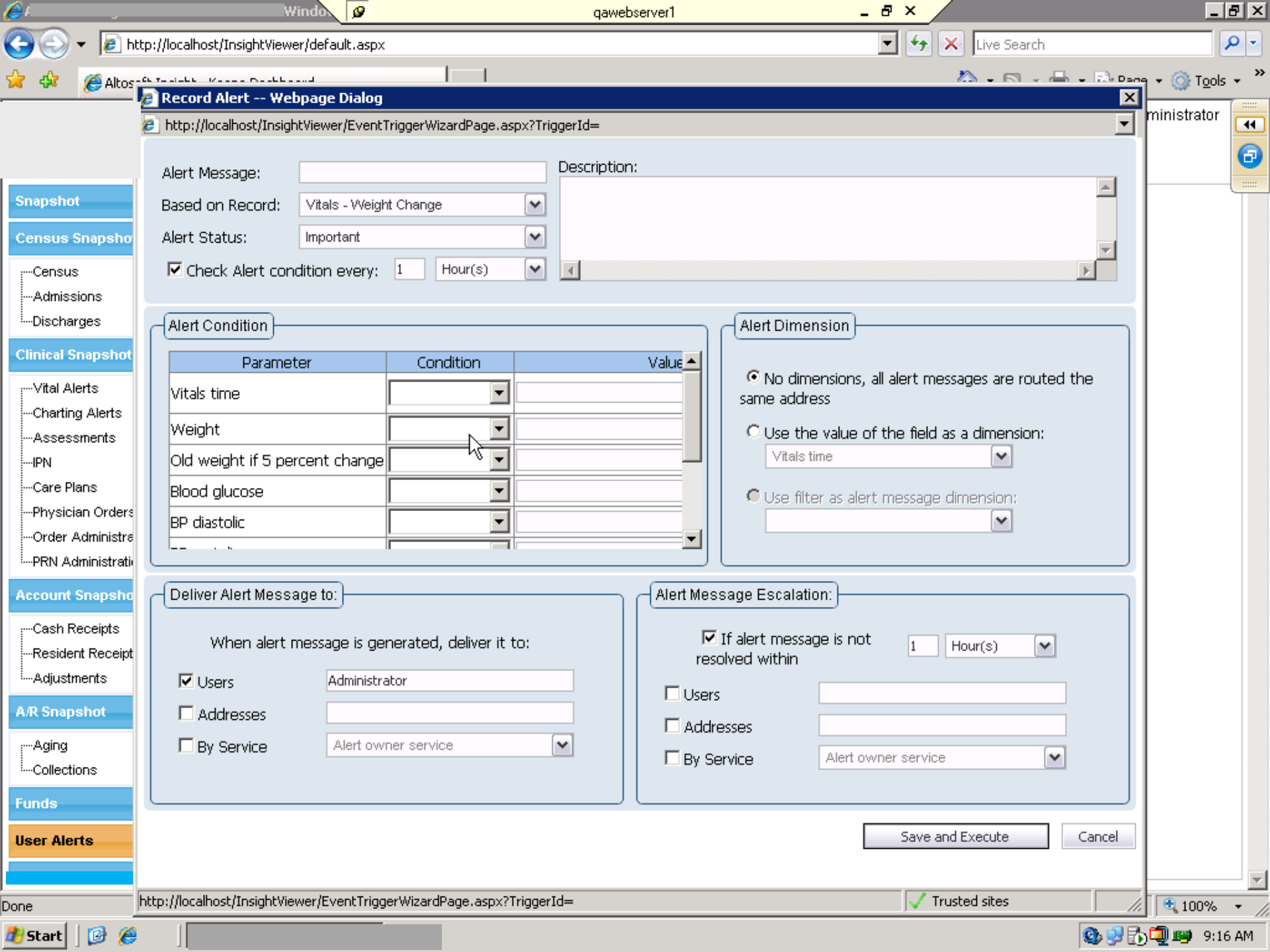
### Residents with Anti-Anxiety or Hypnotic Medication Orders (Based on NDC)

Dimension	Anxiolytic, Sedatives, Hypnotics
NYE LEGACY HEALTH & REHABILITA	71
Regency Square Care	31
NYE POINTE HEALTH & REHAB	26
GATEWAY SENIOR LIVING	15
NYE SQUARE/NYE COURTE	1
<b>Total</b>	<b>144</b>

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[Active](#)
[Reset](#)
Total amount: 5







Record Alert -- Webpage Dialog

http://localhost/InsightViewer/EventTriggerWizardPage.aspx?TriggerId=

Alert Message:

Description:

Based on Record:

Alert Status:

Check Alert condition every:  Hour(s)

Alert Condition

Parameter	Condition	Value
Vitals time	<input type="text"/>	<input type="text"/>
Weight	<input type="text"/>	<input type="text"/>
Old weight if 5 percent change	<input type="text"/>	<input type="text"/>
Blood glucose	<input type="text"/>	<input type="text"/>
BP diastolic	<input type="text"/>	<input type="text"/>

Alert Dimension

No dimensions, all alert messages are routed the same address

Use the value of the field as a dimension:

Use filter as alert message dimension:

Deliver Alert Message to:

When alert message is generated, deliver it to:

Users

Addresses

By Service

Alert Message Escalation:

If alert message is not resolved within  Hour(s)

Users

Addresses

By Service

Save and Execute    Cancel

http://localhost/InsightViewer/EventTriggerWizardPage.aspx?TriggerId=

Trusted sites

100% 9:16 AM