


Automation of Pressure Ulcer Prevalence Database and its Impact on Patient Outcome

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Memorial Sloan-Kettering Cancer Center

Academic medical center focusing on cancer treatment and research, located in NYC and Tri-state region

- ✚ Est. 1884 – The world's oldest and largest private cancer center
- ✚ 470 Inpatient Beds
- ✚ 520,000 Outpatient Visits
- ✚ 19,000 Surgical Cases
- ✚ 11,000 Employees
- ✚ 2,000 Nursing Staff



Objectives

Describe the technological change that can result from collaboration among Nursing, NI, QM & IS

1.

2.

3.

4.

5.

6.

Objectives

Describe the technological change that can result from collaboration among Nursing, NI, QM & IS

1. Discuss statistics associated with pressure ulcer prevalence
- 2.
- 3.
- 4.
- 5.

Objectives

Describe the technological change that can result from collaboration among Nursing, NI, QM & IS

- 1.
2. Describe the manual process using paper to collect pressure ulcer prevalence data
- 3.
- 4.
- 5.

Objectives

Describe the technological change that can result from collaboration among Nursing, NI, QM & IS

1.

2.

3. Define the process used to automate pressure ulcer prevalence data collection

4.

5.

Objectives

Describe the technological change that can result from collaboration among Nursing, NI, QM & IS

1.

2.

3.

4. Describe how SDLC principles were applied to the software application design, development and evaluation

5.

Objectives

Describe the technological change that can result from collaboration among Nursing, NI, QM & IS

1.

2.

3.

4.

5. Describe clinical benefits of using pressure ulcer database

Objectives

Describe the technological change that can result from collaboration among Nursing, NI, QM & IS

1.

2.

3.

4.

5.

6. Describe the data conversion process to send data electronically to NDNQI

Pressure Ulcer Incidence and Prevalence

- ▶ A 79% increase in pressure ulcers in hospitalized patients between 1993 and 2006 (Ayello & Lyder, 2009)
- ▶ Prevalence and incidence remain high across all health settings; costs in terms of human suffering and health care dollars.
- ▶ Represent a major quality indicator of nursing care and are now under the close watch of many regulatory agencies.

Pressure Ulcer Prevalence Data Collectors

- ▶ Pressure ulcer survey team
 - 3 wound care specialized nurses (1 CWOCN and 2 treatment room nurses)
 - 2 data collectors (RN) from each inpatient nursing unit

- ▶ Perform the survey each month

PU Data Collection Paper Forms

Memorial Sloan-Kettering Cancer Center
Pressure Ulcer Prevalence Study Data Collection Form
 Date (Month/Year): _____ Unit: _____ *Unit Census: _____ *# Patient Surveyed: _____
 *All patients Assessed for PU except those that met exclusion criteria: Yes X

Demographics
 Patient Initials: _____
 Room #: _____
 MMR #: _____
 *Age: _____
 *Gender: _____
 Admission Date: _____

Pressure
 *Admission Braden Score: Not Documented *Admission Skin Assessment Documented Yes No Contr
 *Braden Score within last 24 48 Hours Braden Score: _____ Not Documented:
 *Note: If admission within the last 24 - 48 hours report admission Braden Score
 Yes No: Not Assessed:
 *At risk for PU with Braden Score ≤ 18 within last 24-48 hours? Yes No: Not Assessed:
 *Patient at risk with Braden Score ≤ 18 and a Prevention Care Plan Initiated: Yes No NA
 Patient at risk for PU with Braden Score ≤ 18 and prevention measures are documented within last 24 hours (specify measures): Pending (admitted within 24 hrs) No Documentation / Unspecified
 *Skin Assessment documented in past 24 hours: Yes No Patient Refused Documented as Contraindicated
 *Redistribution surface: X Yes for all
 Specialty Bed Yes No Patient Refused Unnecessary for Patient Documented as Contraindicated
 *Repositioning Yes No Patient Refused Unnecessary for Patient Documented as Contraindicated
 *Nutritional Support Yes No Patient Refused Unnecessary for Patient Documented as Contraindicated
 *Moisture Management Yes No Patient Refused Unnecessary for Patient Documented as Contraindicated
 Chair Cushion Yes No Patient Refused Unnecessary for Patient Documented as Contraindicated
 Increase Mobility Plan Yes No Patient Refused Unnecessary for Patient Documented as Contraindicated
 On Skin Inspection does patient have a pressure ulcer? Yes No:
 *Note: If yes, complete this and pressure ulcer assessment section
 Pressure Ulcer Flowsheet Initiated: Yes No
 Pressure Ulcer Treatment Plan Initiated: Yes No
 Wound Care Consult (Stage 3, 4, Unstageable, and DTI): Yes No NA

Assessment Parameters	PU #1	PU #2	PU #3	PU #4	PU #5
* Stage	Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III <input type="checkbox"/> Stage IV <input type="checkbox"/> Unstageable <input type="checkbox"/> DTI <input type="checkbox"/> UTD <input type="checkbox"/>	Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III <input type="checkbox"/> Stage IV <input type="checkbox"/> Unstageable <input type="checkbox"/> DTI <input type="checkbox"/> UTD <input type="checkbox"/>	Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III <input type="checkbox"/> Stage IV <input type="checkbox"/> Unstageable <input type="checkbox"/> DTI <input type="checkbox"/> UTD <input type="checkbox"/>	Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III <input type="checkbox"/> Stage IV <input type="checkbox"/> Unstageable <input type="checkbox"/> DTI <input type="checkbox"/> UTD <input type="checkbox"/>	Stage I <input type="checkbox"/> Stage II <input type="checkbox"/> Stage III <input type="checkbox"/> Stage IV <input type="checkbox"/> Unstageable <input type="checkbox"/> DTI <input type="checkbox"/> UTD <input type="checkbox"/>
Location (See Code)					
Admitted with Pressure Ulcer?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Pressure Ulcer Hospital Acquired?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
*Pressure Ulcer Ever Acquired?	Yes <input type="checkbox"/> No <input type="checkbox"/> If not on this unit, which unit?	Yes <input type="checkbox"/> No <input type="checkbox"/> UTD <input type="checkbox"/> If not on this unit, which unit?	Yes <input type="checkbox"/> No <input type="checkbox"/> UTD <input type="checkbox"/> If not on this unit, which unit?	Yes <input type="checkbox"/> No <input type="checkbox"/> UTD <input type="checkbox"/> If not on this unit, which unit?	Yes <input type="checkbox"/> No <input type="checkbox"/> UTD <input type="checkbox"/> If not on this unit, which unit?
Documentation of Treatment	UTD <input type="checkbox"/>	UTD <input type="checkbox"/>	UTD <input type="checkbox"/>	UTD <input type="checkbox"/>	UTD <input type="checkbox"/>
Pressure Ulcer Treatment Plan Code	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Pressure Ulcer Outcome	Healed <input type="checkbox"/> Improving <input type="checkbox"/> No Change <input type="checkbox"/> Deteriorated <input type="checkbox"/> Unable to Determine <input type="checkbox"/>	Healed <input type="checkbox"/> Improving <input type="checkbox"/> No Change <input type="checkbox"/> Deteriorated <input type="checkbox"/> Unable to Determine <input type="checkbox"/>	Healed <input type="checkbox"/> Improving <input type="checkbox"/> No Change <input type="checkbox"/> Deteriorated <input type="checkbox"/> Unable to Determine <input type="checkbox"/>	Healed <input type="checkbox"/> Improving <input type="checkbox"/> No Change <input type="checkbox"/> Deteriorated <input type="checkbox"/> Unable to Determine <input type="checkbox"/>	Healed <input type="checkbox"/> Improving <input type="checkbox"/> No Change <input type="checkbox"/> Deteriorated <input type="checkbox"/> Unable to Determine <input type="checkbox"/>
Complete this section on all patients even if the patient has no pressure ulcers	Stage I: HA: _____ Admitted with _____ Stage II: HA: _____ Admitted with _____ Stage III: HA: _____ Admitted with _____ Stage IV: HA: _____ Admitted with _____ Unstageable: HA: _____ Admitted with _____ DTI: HA: _____ Admitted with _____ UTD: HA: _____ Admitted With _____	Stage I: HA: _____ Admitted with _____ Stage II: HA: _____ Admitted with _____ Stage III: HA: _____ Admitted with _____ Stage IV: HA: _____ Admitted with _____ Unstageable: HA: _____ Admitted with _____ DTI: HA: _____ Admitted with _____ UTD: HA: _____ Admitted With _____	Stage I: HA: _____ Admitted with _____ Stage II: HA: _____ Admitted with _____ Stage III: HA: _____ Admitted with _____ Stage IV: HA: _____ Admitted with _____ Unstageable: HA: _____ Admitted with _____ DTI: HA: _____ Admitted with _____ UTD: HA: _____ Admitted With _____	Stage I: HA: _____ Admitted with _____ Stage II: HA: _____ Admitted with _____ Stage III: HA: _____ Admitted with _____ Stage IV: HA: _____ Admitted with _____ Unstageable: HA: _____ Admitted with _____ DTI: HA: _____ Admitted with _____ UTD: HA: _____ Admitted With _____	Stage I: HA: _____ Admitted with _____ Stage II: HA: _____ Admitted with _____ Stage III: HA: _____ Admitted with _____ Stage IV: HA: _____ Admitted with _____ Unstageable: HA: _____ Admitted with _____ DTI: HA: _____ Admitted with _____ UTD: HA: _____ Admitted With _____
					5099 MR & L

Data Collection Analysis Form

Date: _____ Unit: _____ Unit Census: _____ # Patient Surveyed: _____

Data Analysis (Tallying Data)

- # Patients at risk for Pressure Ulcer on Admission:
 - At Risk
 - Not Assessed
 - Not At Risk
- # Patients at risk for Pressure Ulcers within 24 - 48 hours of Prevalence Study:
 - At Risk
 - Not Assessed
 - Not At Risk
- If patient at risk for Pressure Ulcer with a Braden ≤ 18 , either on admission or within last 24 - 48 hours, was a Prevention Care Plan Initiated?
 - Yes
 - No
- If patient has a Pressure Ulcer, was a Pressure Ulcer Flow sheet completed?
 - Yes
 - No
- If patient has a Pressure Ulcer, was a Pressure Ulcer Treatment Form Completed?
 - Yes
 - No
- If patient has a full thickness pressure ulcer(s): Stage 3, 4, Unstageable, or DTI, has the patient been seen by a Wound Care Nurse from the treatment Room?
 - Yes
 - No
 - NA

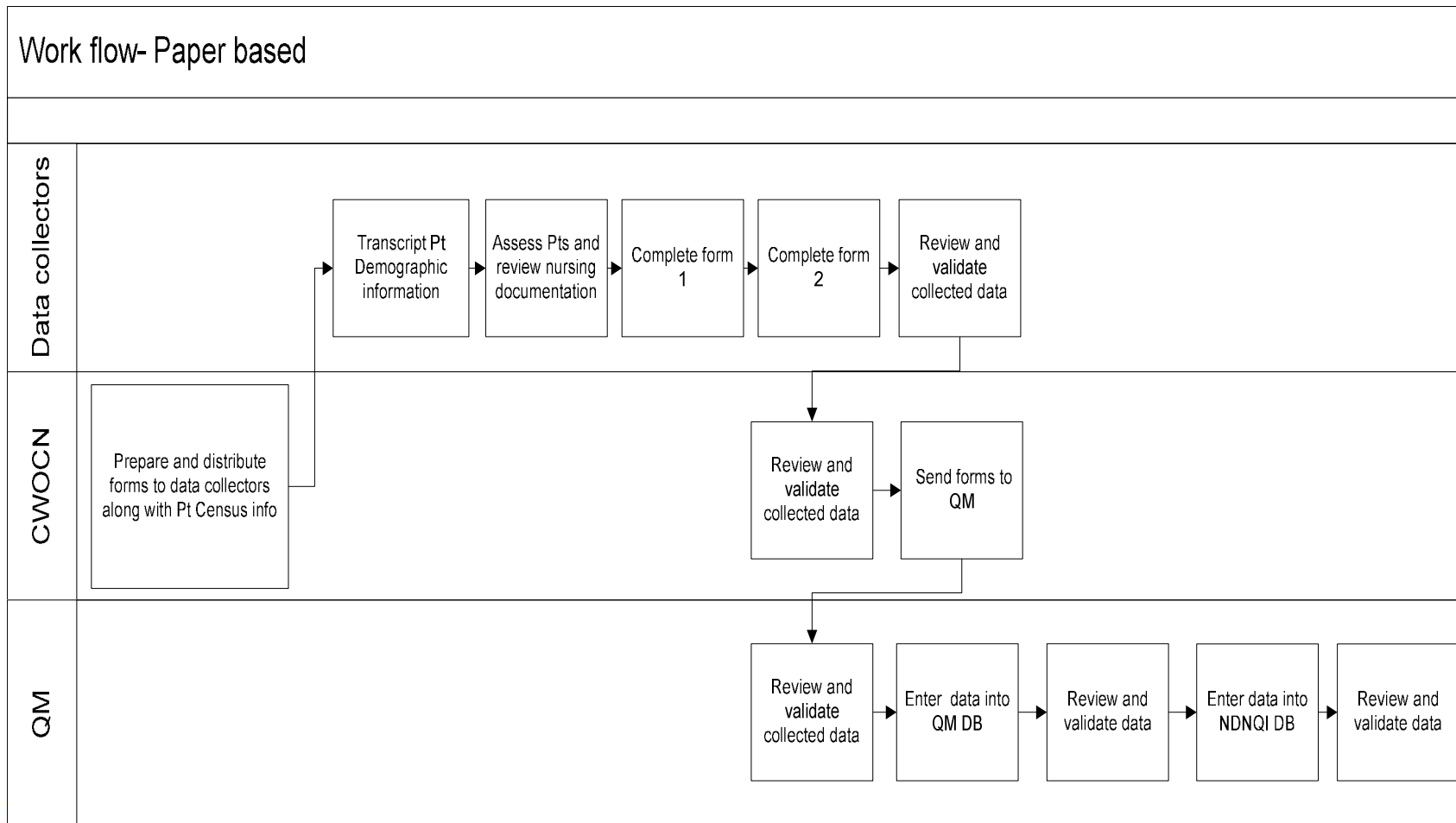
7. Classification for Patients with Pressure Ulcer

Code	Patient Classification	# Patient
Ad W	Patients admitted to MSKCC with PU	
HA	Patients who developed PU while admitted to MSKCC (HA)	
	Patients admitted to MSKCC with PU and who developed additional PU (HA) during admission	
Total Number of Patients with Pressure Ulcers		

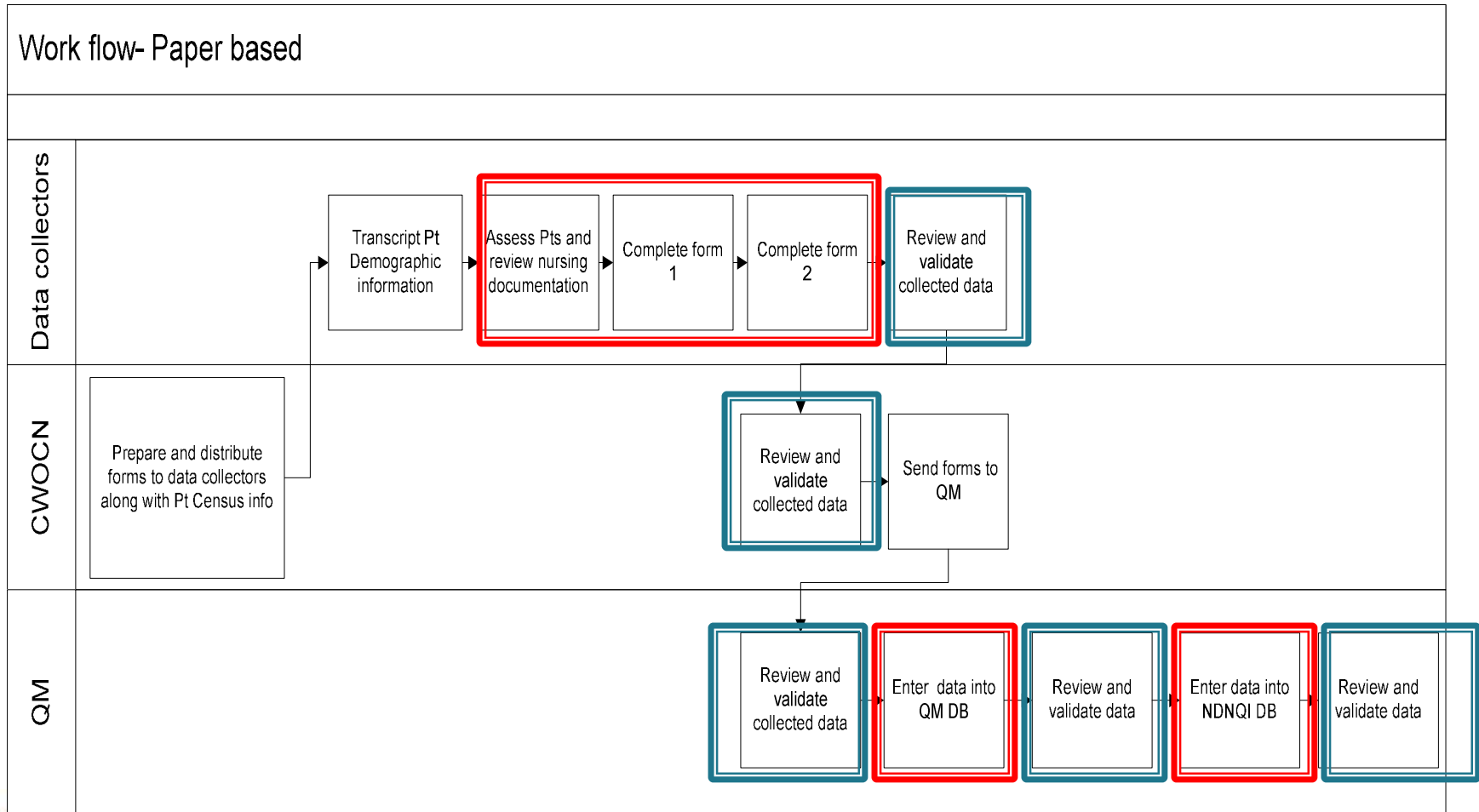
8. # Pressure Ulcers by Staging

	Stage 1	Stage 2	Stage 3	Stage 4	Unstageable	DTI	UTD
Ad W							
HA							
Total #:							
Total # Pressure Ulcer(s) Stage 3, 4, Unstageable, DTI:							
Total # UTD Ulcer							
Total # Hospital Acquired Pressure Ulcers (All Stages):							
Total # Pressure Ulcer(s) all stages:							

Analysis Phase: Paper based pressure ulcer survey work flow



Analysis Phase: Paper based pressure ulcer survey work flow



Analysis Phase: Need Assessment – PIECES

- ▶ PIECES framework consists of 6 categories developed by James Wetherbe for classifying problems
- ▶ Performance, Information, Economics, Control, Efficiency and Service

Request To Nursing Informatics

Can we automate our paper process of collecting pressure ulcer prevalence in order to :

- ▶ Improve accuracy of data
- ▶ Improve time management
- ▶ Improve utilization of resources
- ▶ Analyze data in real time to make the greatest impact on patient care outcomes
- ▶ Allow for collection of internal and external data to improve patient outcomes and utilization of resources
- ▶ Allow for better protection of patients and organizational sensitive material

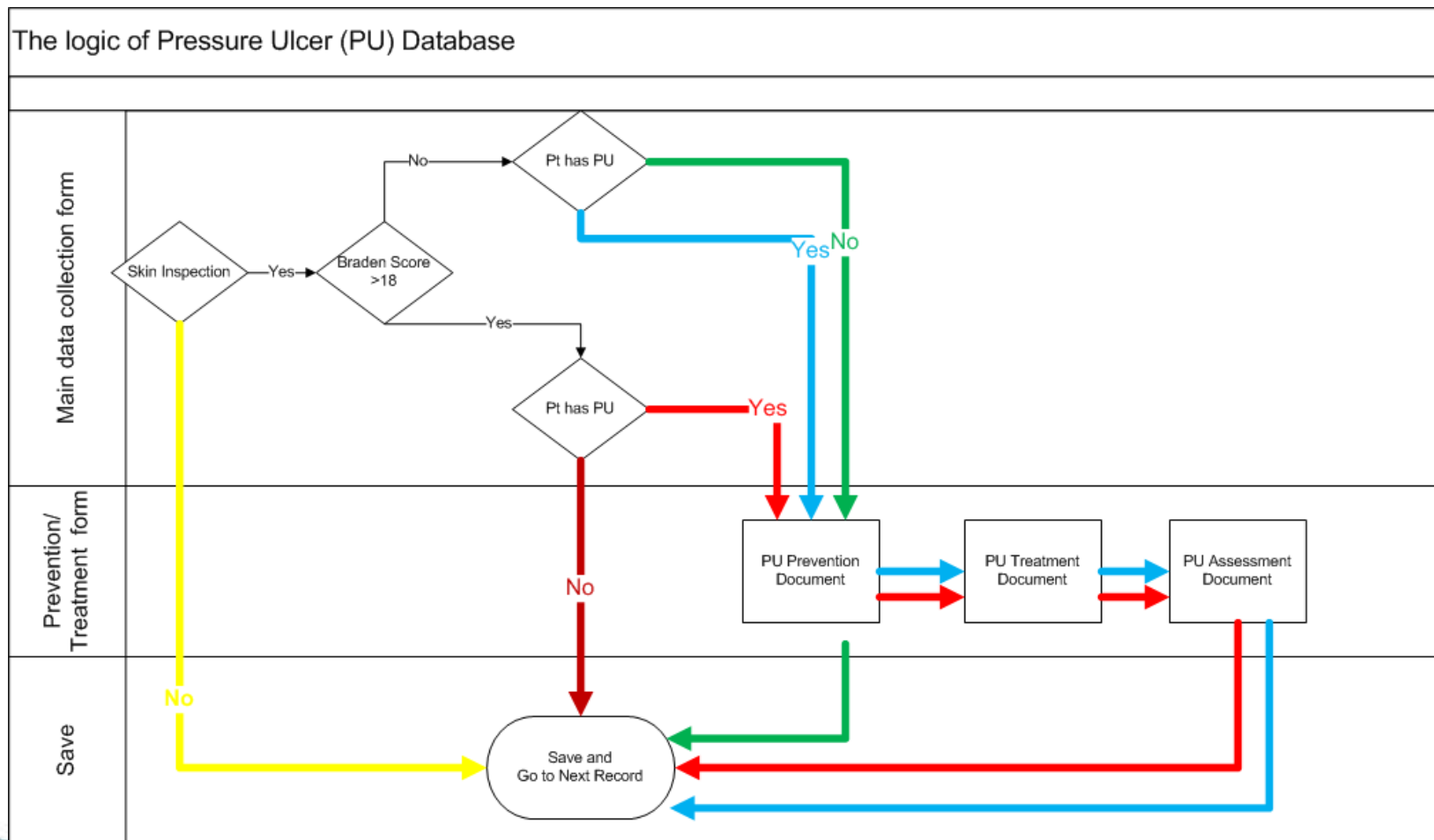
Stakeholders

- ▶ Pressure ulcer data survey team
- ▶ Nursing informatics department
- ▶ Quality management department
- ▶ Information system department
- ▶ Nursing leadership
- ▶ Nursing staff at MSKCC
- ▶ Patients at MSKCC

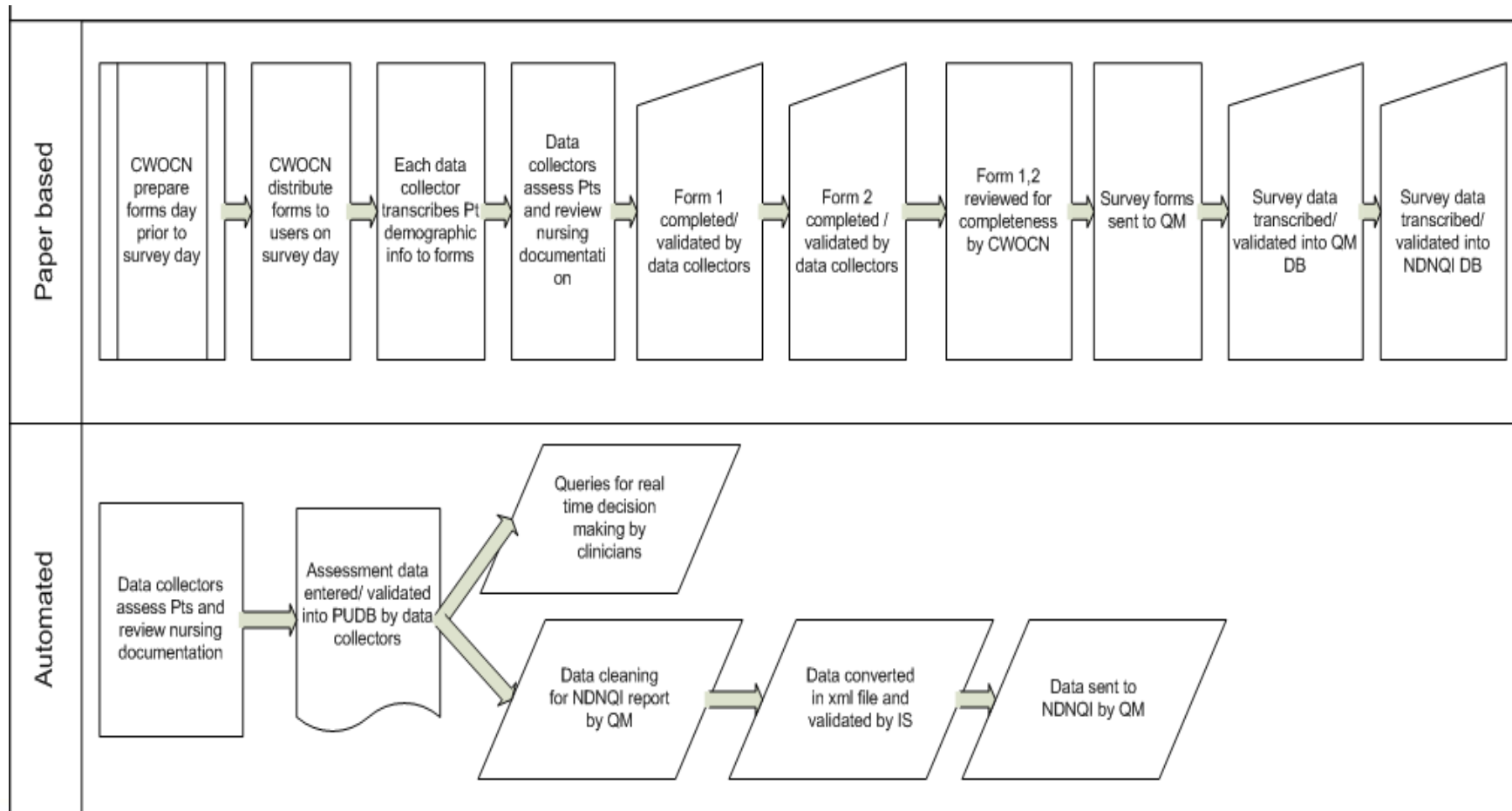
Scope of Pressure Ulcer Data Base (PUDB)

- ▶ Build database with data entry driven logic
- ▶ Ability to download the current patient census
- ▶ Secure driven access on any unit clinical work station
- ▶ Develop automatic queries that analyze data collection and provide summarized information for data collectors post survey
- ▶ Allow data to electronically map to quality management database

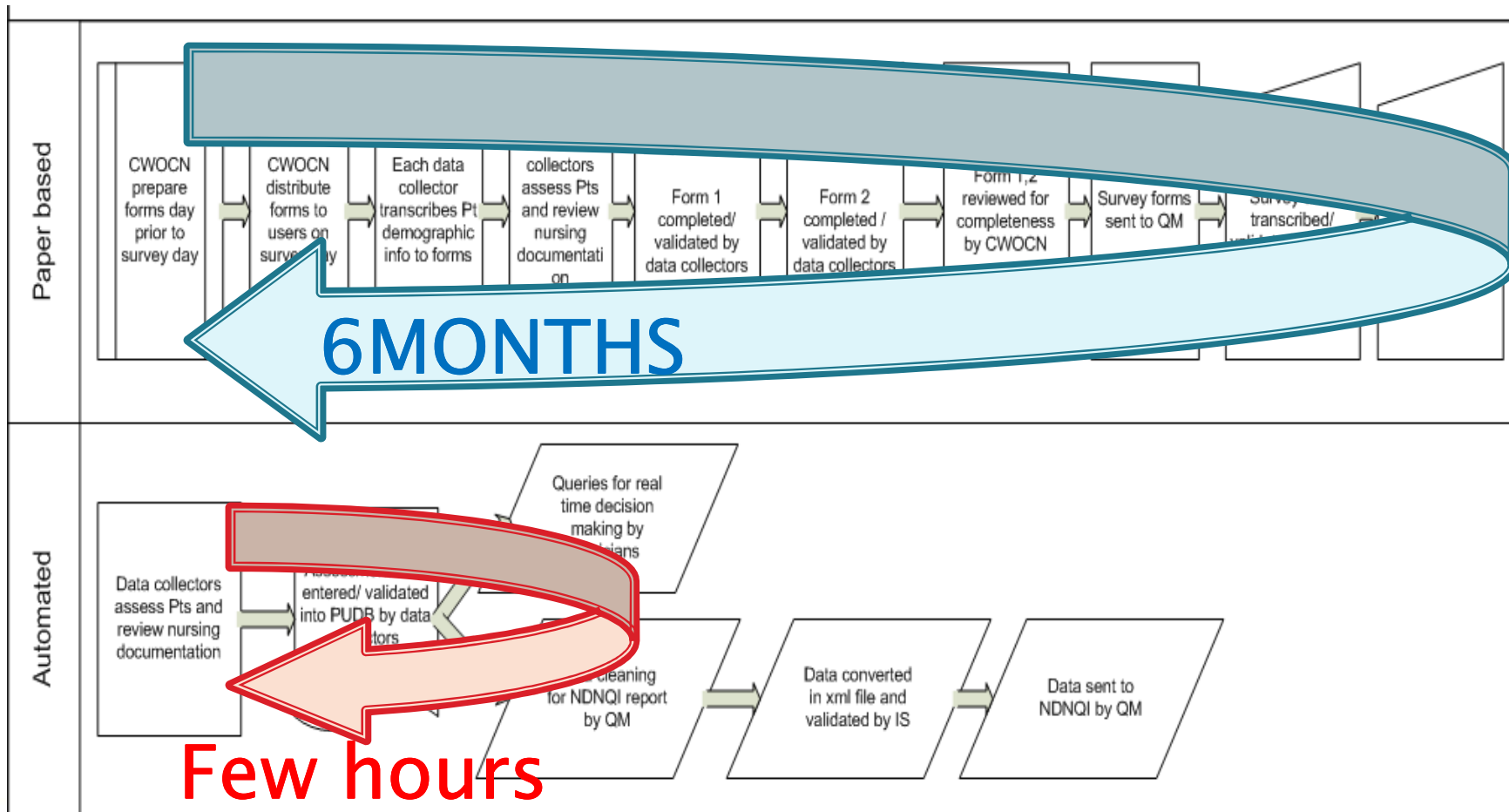
PUDB - 5 Logical Flows



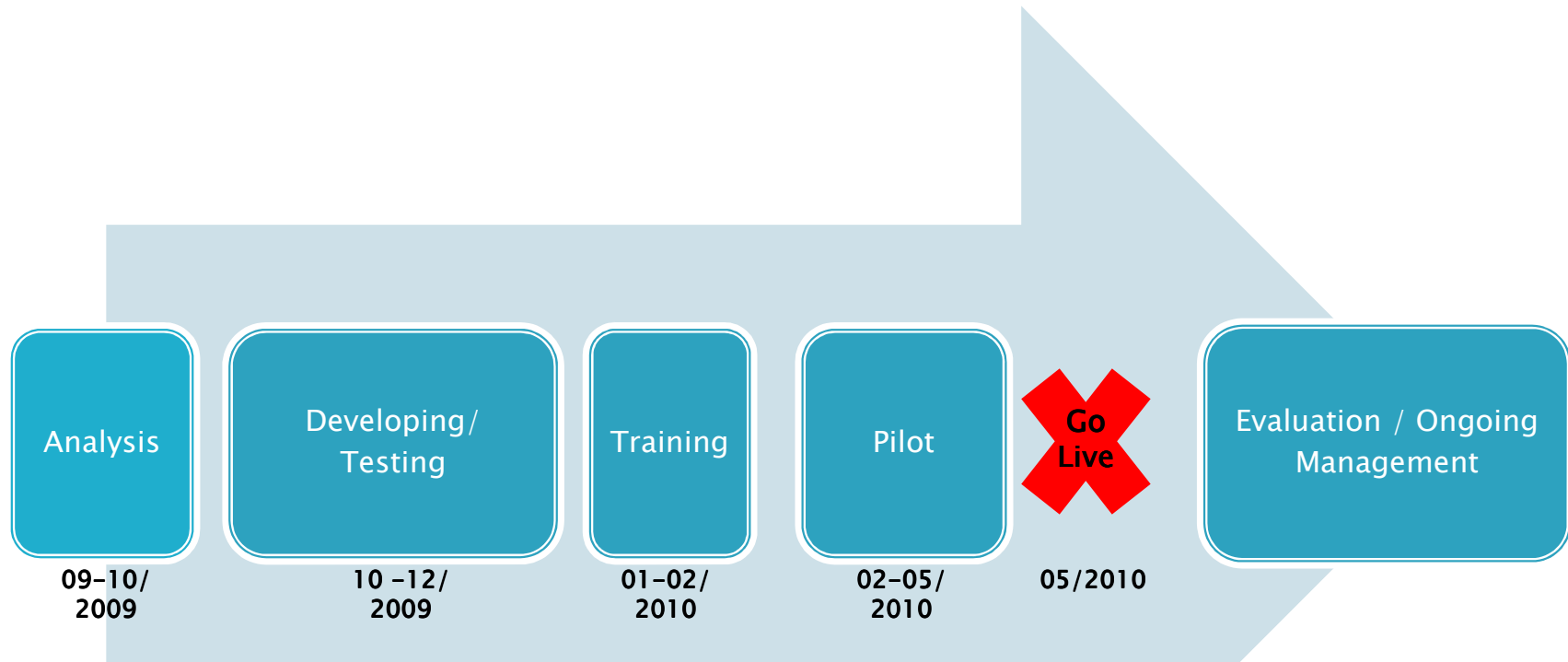
Comparison Workflow Paper vs Automated



Comparison Workflow Paper vs Automated



System Development Life Cycle



Evaluation

- ▶ Financial indicators
 - Time study
 - Indirect costs (office supply)
- ▶ Clinical indicators
 - Improved decision support by faster extracting/utilizing of pressure ulcer data
 - Improved internal and external quality reporting
 - Efficient evaluation of current treatment protocols on nursing units
 - Improved users' satisfaction

Clinical Benefits

Identification of hospital-wide and unit pressure ulcer specific patterns:

- Pressure ulcer identification/locations
- Staging/Diagnosis issues
- Prevention measures initiated
- Treatment appropriateness/preferences

Analysis of hospital-wide and unit specific data :

- Prevalence of Braden risk assessment subscale factors
- Pressure ulcer prevention and treatment outcomes
- Pressure ulcer prevention and treatment product utilization

Clinical Benefits

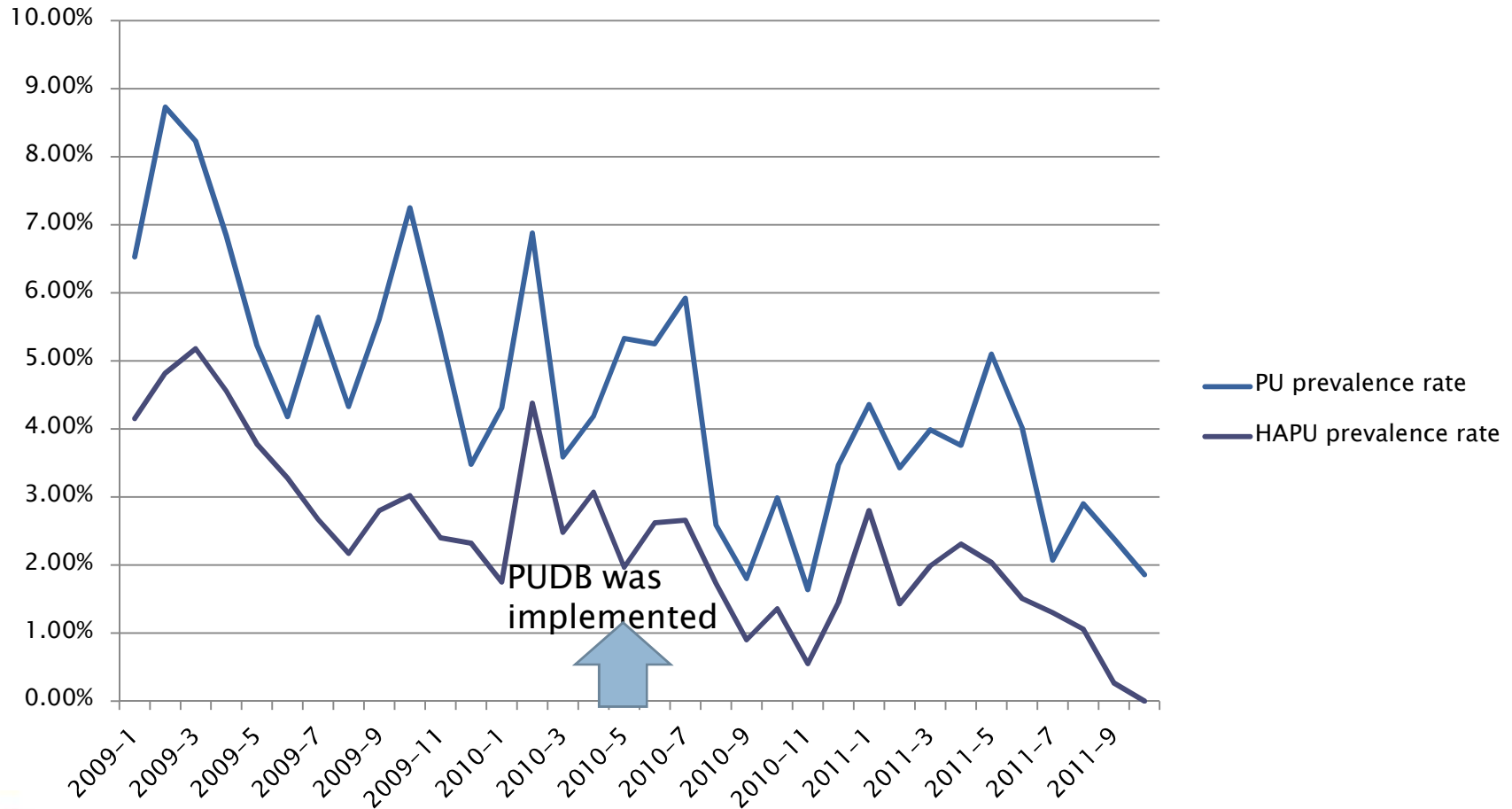
Interventions in real time:

- Corrections in staging/diagnosis
- Implementation of prevention measures
- Adjustments in treatments to improve outcomes

Evaluation of hospital-wide and unit specific outcomes:

- Pressure ulcer education
- Comparison of prevalence between units and benchmarked against NDNQI NCI and teaching hospital cohorts
- Skin/wound/pressure ulcer product performance

Monthly Pressure Ulcer Prevalence Rate at MSKCC



PUDB Main Menu

Pressure Ulcer Survey Main Menu

To find/search Patient, put MRN Number

Month:

3

Year:

2011

MRN Number:

Enter Data

Review Survey Data

Data Analysis Report


Exit

Skin Inspection Form

Patient Name	Room	MRN	Age	Gender	Unit Name	Year	Month
Jane Doe	15	1	60	Male	UCC	2011	3

Skin Inspection:

- Done
- Patient refused
- Patient off unit
- Unsafe for patient condition
- Patient actively dying
- Discharged



Main Menu

Assessment Form

Patient Name	Room	MRN	Age	Gender	Unit Name	Year	Month
Jane Doe	15	1	60	Male	UCC	2011	3

Skin Inspection:

Done

On Admission

Admission Date: 3/1/2011

Skin Assessment Document w/i 24hrs of admission: Yes

Braden Score: 23

Ongoing Assessment

Braden Score w/i Last : > 0 to 12 hours

Skin Assessment Document w/i 24hrs: Yes

Braden Score: 23

If admitted w/i last 24-48 hours, repeat Admission Braden Score

Pt has Pressure Ulcer: No

Restraint in Use: N/A for Feb 2011

Main Menu

Save

Prevention Care Plan Form

Patient Name	Room	MRN	Age	Gender	Unit Name	Year	Month
Jane Doe	15	1	60	Male	UCC	2011	3

Pressure Ulcer (PU) Prevention

Prevent Care Plan Initiated: Yes

Prevention Measures are documented within last 24 hours

Prevention Measure(s) w/i 24hrs:	Yes	Nutritional Support:	Patient refused
Redistribution surface:	Yes	Moisture Management:	Yes
Specialty Bed:	Unnecessary for patient	Chair Cushion:	No
Repositioning:	Yes	Increased Mobility Plan:	Documented contraindication

Back

Main Menu

Save

Treatment Plan Form

Patient Name	Room	MRN	Age	Gender	Unit Name	Year	Month
Jane Doe	15	1	60	Male	UCC	2011	3

Pressure Ulcer (PU) Document

PU Flowsheet Initiated: Yes

PU Treatment Plan Initiated: Yes

Wound Care Consult: NA

** For Stage 3, 4, Unstageable, and Deep Tissue Injury*

Back

Main Menu

Save

PU Assessment Form

Patient Name	Room	MRN	Age	Gender	Unit Name	Year	Month
Jane Doe	15	1	60	Male	UCC	2011	3

Pressure Ulcer (PU) #1

Stage: Stage 1

Location: Rt. Sacrum

CAPU*: Yes

HAPU*: No

UAPU*: No

From which Unit: ICU

Documentation of Treatment: Yes

Outcomes: No Change

Treatment 1: Normal Saline moist dressing

Treatment 2: Dakin's impregnated gauze

Treatment 3: Other Antimicrobial Dressing

Pressure Ulcer (PU) #2

Stage: Stage 2

Location: Rt. Ischial Tuberosity

CAPU*: No

HAPU*: Yes

UAPU*: No

From which Unit: ICU

Documentation of Treatment: Yes

Outcomes: Deteriorated

Treatment 1: Normal Saline moist dressing

Treatment 2: Hydrocolloid

Treatment 3: Ointments

* CAPU: Community Acquired PU, * HAPU: Hospital Acquired PU, * UAPU: Unit Acquired PU

Back

Main Menu

Save

Save and More Pressure Ulcer

Data Review Form

Find Record

Main Menu

Total Number of Unit Census in DB: 1

Number of Patients Completed Survey: 1

Month:	3	Year:	2011	Unit Name:	UCC	Room:	15
Pt Name:	Jane Doe	MRN:	1	Age:	60	Gender:	Male

Skin Inspection Done:	Done	Braden Score within Last:	> 0 to 12 hours
Admission Date:	3/1/2011	Ongoing Braden Score:	16
Admission Braden Score:	23	Skin Assessment Document:	Yes
Admission Skin Assessment:	Yes	Pt has Pressure Ulcer:	Yes

Prevent Care Plan Initiated:	Yes	Repositioning:	Yes
Prevention Measure W/last 24hrs:	Yes	Nutritional Support:	Patient refused
Redistribution surface:	Yes	Moisture Management:	Yes
Specialty Bed:	Unnecessary for patient	Chair Cushion:	No
Increased Mobility Plan:	Documented contraindication		

PU Flowsheet Initiated:	Yes	PU Treatment plan Initiated:	Yes
Wound Care Consult:	NA		

1 Stage:	Stage 1	1 Location:	Rt. Sacrum
1 UAPU:		1 Unit Name:	
1 Treatment 1:	Normal Saline moist dressing		
1 Treatment3:	Other Antimicrobial Dressing		

1 CAPU:	Yes	1 HAPU:	
1 Documentation of Treatment:	Yes		
1 treatment 2:	Dakin's impregnated gauze		
1 Outcomes:	No Change		

Data Report Form

Survey Data Collection Analysis Report

Year: 2011 Month: 3 Unit: UCC 3/2/2011 2:55 PM

- | | |
|---|---|
| 1. Unit census: | 1 |
| 2. Number of patients surveyed: | 1 |
| 3. Number of patients with pressure ulcer: | 1 |
| 4. Number of patients who developed Pressure Ulcer while admitted to MSKCC (HAPU): | 1 |
| 5. Number of patients with Unit Acquired Pressure Ulcer (UAPU): | 0 |
| 6. Total number of Pressure Ulcer: | 2 |
| 7. Total number of HAPU: | 1 |
| 8. Total number of UAPU: | 0 |
| 9. Number of patients admitted MSKCC with Pressure Ulcer (CAPU): | 1 |
| 10. Number of patients who has CAPU and HAPU: | 1 |
| 11. Number of patients with no documented Admission Braden Score: | 0 |
| 12. Number of patients with no documented Admission Skin Assessment: | 0 |
| 13. Number of patients with a Braden Score ≤ 18 within last 0-24 hours without Prevention Care Plan: | 0 |
| 14. Number of patients with a pressure ulcer without Flow Sheet initiated: | 0 |
| 15. Number of patients with a pressure ulcer without Treatment Plan initiated: | 0 |
| 16. List of Pressure Ulcer by stage, location, CAPU, HAPU, UAPU, and treatment plan | |

Stage	Location	From	Treatment(1)	Treatment(2)	Treatment(3)
Stage 1	Rt. Sacrum	CAPU	Normal Saline moist dressing	Dakin's impregnated gauze	Other Antimicrobial Dressing
Stage 2	Rt. Ischial Tuberosity	HAPU	Normal Saline moist dressing	Hydrocolloid	Ointments

17. The type and number of Specialty beds:

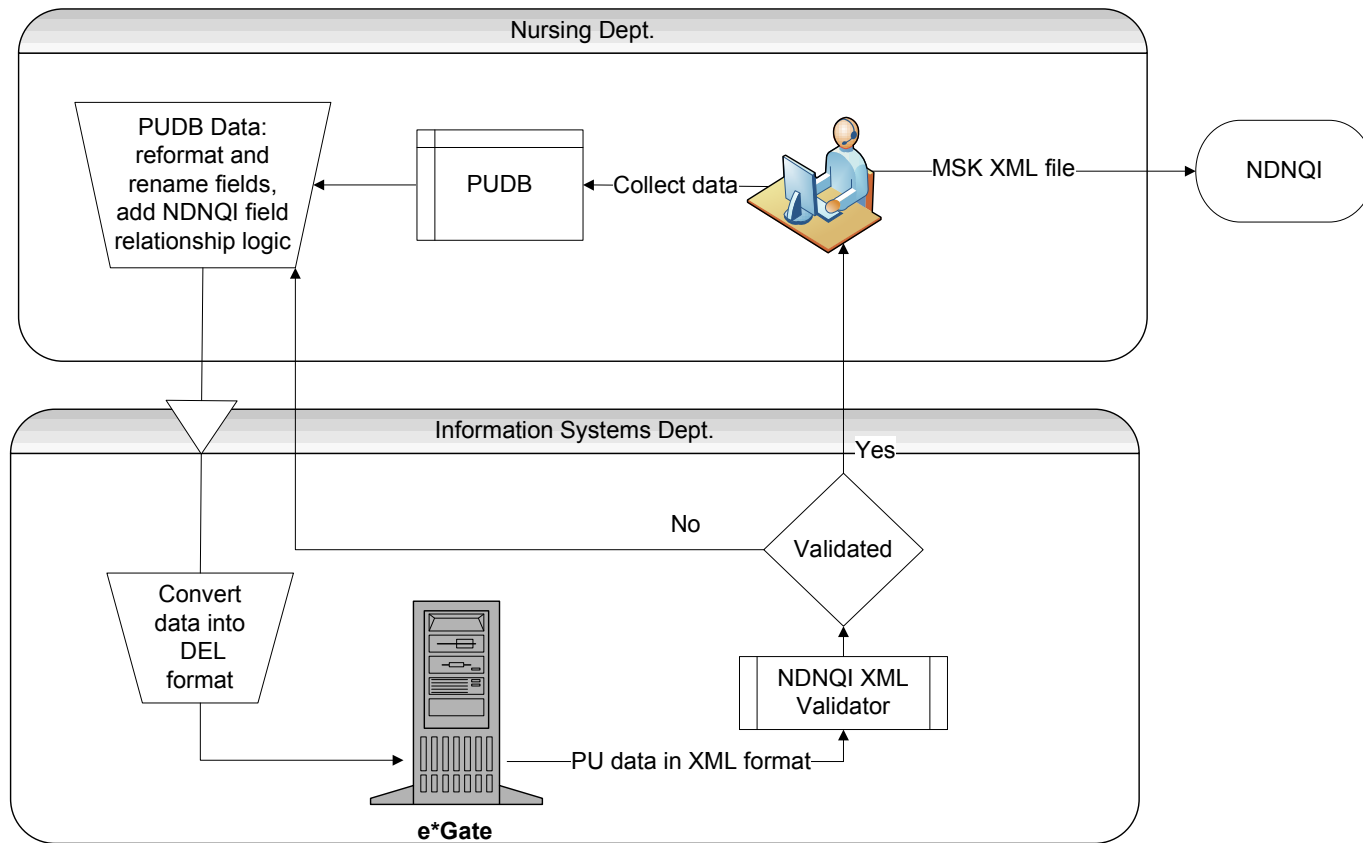
18. The type and number of Treatment options:

Treatment Options	Count
Normal Saline moist dressing	2
Other Antimicrobial Dressing	1
Ointments	1
Hydrocolloid	1
Dakin's impregnated gauze	1

- | | |
|--|---|
| 19. Number of patients who have HAPU and 'No' Specialty Bed: | 0 |
| 20. Number of patients who have HAPU and 'No' Repositioning: | 0 |
| 21. Number of patients who have HAPU and 'No' Nutritional Support: | 0 |
| 22. Number of patients who have HAPU and 'No' Moisture Management: | 0 |



Pressure Ulcer Survey Data Flow



Query PU Data Output

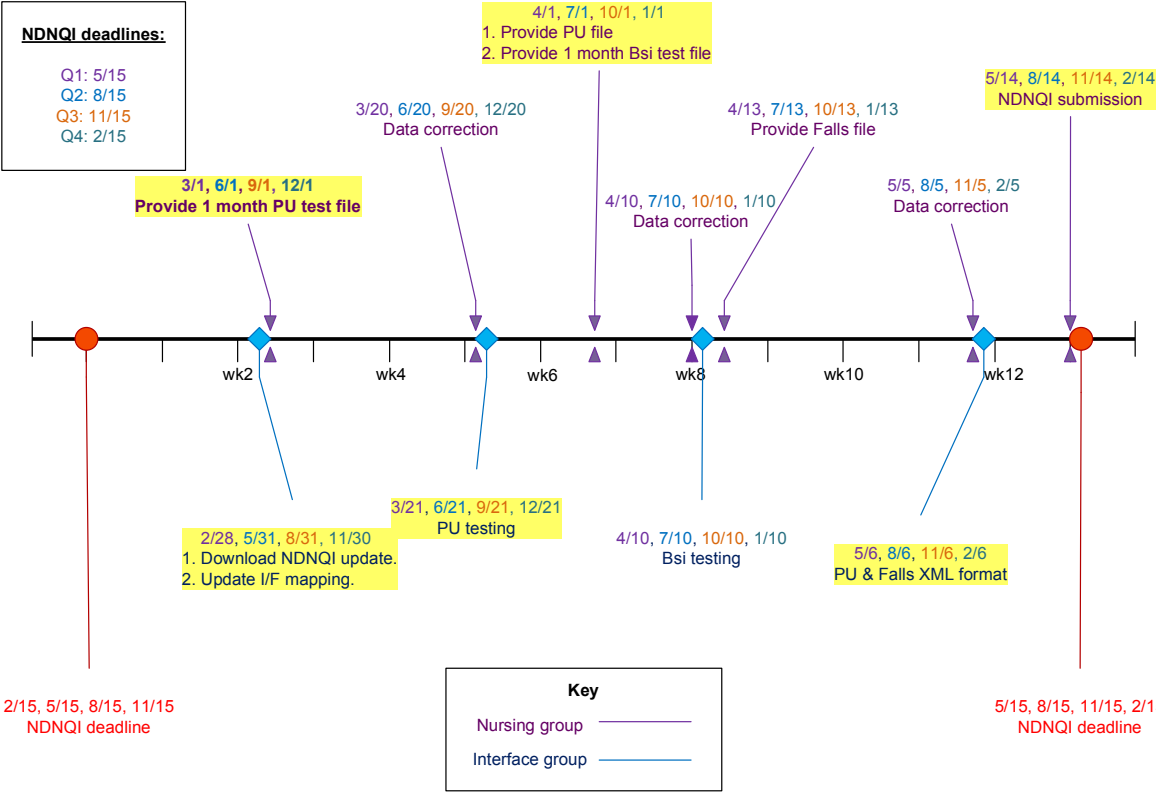
dbo_Patient Pressure Ulcers										
Age	Gender1	AdmissionD	SkinInspecti	AdmissionBS	AdmissionSkin	BSwithinLas	DailyBS	PreventCare	PreventionM	SkinA
76	Female	9/14/2010	Done	16	Yes	12 to 24 hours	16	Yes	Yes	Yes
74	Male	8/17/2010	Done	18	Yes	12 to 24 hours	20			Yes
75	Male	8/16/2011	Patient refused						Yes	
69	Male	9/14/2011	Patient off unit						Yes	
60	Female	10/19/2010	Done	20	Yes	> 12 to 24 hours	20			Yes
72	Male	9/7/2010	Done	20	Yes	12 to 24 hours	21			Yes
77	Female	8/6/2010	Patient actively							
44	Male	8/25/2011	Done	22	Yes	> 0 to 12 hours	21			Yes
72	Female	9/19/2011	Done	21	Yes	> 0 to 12 hours	20			Yes
72	Female	9/10/2011	Done	21	Yes	> 0 to 12 hours	20			Yes
76	Male	10/7/2011	Done	20	Yes	> 0 to 12 hours	20	Yes	Yes	Yes



xGenderFID	xRecencyHoursFID	xPressureUlcerSkinAssessmentOnAdmissionFID	xPressureUlcerRiskAssessmentOnAdmissionFID	xUlcerRiskAssmntFIDOnAdmissionScale	xUlcerRiskAssessmentScoreOnAdmission	xUlcerAtRiskLastAssessmentFID	xUlcerRiskAssmntFIDLastScale	xUlcerRiskAssessmentScoreLast	TotalUlcerCount	HospAcquiredCount
Female	> 12 to 24 hours	Yes	Yes	Braden	22	No	Braden	20	0	0
Female	> 12 to 24 hours	Yes	Yes	Braden	20	No	Braden	19	0	0
Female	> 12 to 24 hours	Yes	Yes	Braden	18	Yes - based on risk	Braden	18	0	0
Female	> 12 to 24 hours	Yes	Yes	Braden	20	No	Braden	23	0	0
Female	> 12 to 24 hours	Yes	Yes	Braden	20	No	Braden	20	0	0
Female	> 12 to 24 hours	Yes	Yes	Braden	23	No	Braden	20	0	0
Female	> 12 to 24 hours	Yes	Yes	Braden	16	No	Braden	19	0	0
Female	> 12 to 24 hours	Yes	Yes	Braden	18	Yes - based on risk	Braden	18	0	0

NDNQI Data Submission Work Flow

MSK NDNQI Quarterly Submission Work Flow



Special Thanks

- ▶ Mary Lakaszawski, MSN, RN CWOCN
- ▶ Helina Beninati, RN
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- ▶ Kevin Browne, MSN, RN CCRN, Director of Nursing
- ▶ Patricia Mctague, MS, RN Nurse Leader
- ▶ Brenda Soto Mercado, Data Management Assistant
- ▶ Joanne Bulfin, Data Management Coordinator
- ▶ Jing Yan, MS, Integration Programmer Analyst
- ▶ Jordan Winsten , Senior Systems Analyst

QUESTIONS?

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