



The Newborn Frontier

Geisinger's Perinatal ProvenCare Program

GEISINGER
HEALTH SYSTEM

ProvenCare[®]

- Concept: Link evidence-based practices to a continuum of care in a subclass of patients and reliably give that care **to each and every patient**
- Purpose: Fully optimize patient outcomes
Reduce unnecessary variability in care
Create an idealized flow for providers and patients

ProvenCare®

brings national attention

StarNewsOnline.com 
The Voice of Southeastern North Carolina

The Detroit News
detnews.com

Chicago Tribune

denverpost.com
THE DENVER POST



The New York Times
National
MAY 13, 2007

In Bid for Better Hospital Care, Heart Surgery With a Warranty

By REED ABEISON

What if medical care came with a 90-day warranty?

That is what a hospital group in central Pennsylvania is trying to learn in an experiment that some experts say is a radically new way to encourage hospitals and doctors to provide high-quality care that can avoid costly mistakes.

The group, Geisinger Health System, has overhauled its approach to surgery. And taking a cue from the makers of TVs, washing machines and other products, Geisinger essentially guarantees its workmanship, charging a flat fee that includes 90 days of follow-up treatment.

Even if a patient suffers complications or has to come back to the hospital, Geisinger promises not to send the insured another bill.

Geisinger is by no means the only hospital system currently rethinking ways to better deliver care that might also reduce costs. But its effort is noteworthy as a distinct departure from the typical medical reimbursement system in this country, under which doctors and hospitals are paid mainly for delivering more care — not necessarily better care.

Since Geisinger began its experiment in February 2006, focusing on elective heart bypass surgery, it says patients have been less likely to re-arrange intensive care, have spent fewer days in the hospital and are more likely to return directly to their own homes instead of going to a nursing home.

Geisinger presented the first-year results of its experimental program at a meeting last month of the American Surgical Association.

Geisinger stands out as a group that has transformed the way it delivers care, said Dr. Donald M. Berwick, the chief executive of Institute for Healthcare Improvement, a national nonprofit organization whose

In almost no other field would consumers tolerate the frequency of error that is common in medicine, Dr. Berwick said, and Geisinger has managed to reduce the rate significantly. "Getting everything right is really, really hard," he said.

It is still too early to know whether the approach, which Geisinger calls ProvenCare, will catch on with employers and health insurers.

So far, the only insurer that Geisinger has contracted with under the new arrangement is its own insurance unit, which covers about 210,000 people in Pennsylvania. Eventually, though, Geisinger hopes to attract other insurers and employers that provide health benefits by expanding the approach into other lines of care provided by the nearly 600 doctors it employs at its three hospitals and 55 offices in the region.

Geisinger is trying to address what it views as a flaw in the typical medical reimbursement system.

Under the typical system, missing an antibiotic or giving poor instructions when a patient is released from the hospital results in a perverse reward: the chance to bill the patient again if more treatment is necessary. As a result, doctors and hospitals have little incentive to ensure they consistently provide the treatments that medical research has shown to produce the best results.

Researchers estimate that roughly half of American patients never get the most basic recommended treatments — like an aspirin after a heart attack, for example, or antibiotics before hip surgery.

The wide variation in treatments can translate to big differences in death rates and surgical complications. In Pennsylvania alone, the mortality rate during a hospital stay for heart surgery varies from zero to the best-performing hospitals to nearly 10 percent at the worst performer, according to the Pennsylvania Health Care Cost

Around the world, other modern industries — whether car manufacturing or computer chip making — have long understood the importance of improving each piece of the production process to ramp down costs and improve overall quality.

But hospitals have been slow to focus their attention on standardizing the way they deliver care, said Dr. Arnold M. Klutznick, the medical director for the Pacific Business Group on Health, a California organization of large companies that provide medical benefits to their workers. Geisinger "is one of the few systems in the country that is just beginning to understand the lessons of global manufacturing," Dr. Klutznick said.

In re-examining how they perform bypass surgery, Geisinger doctors identified 48 essential steps, then devised procedures to ensure the steps would always be followed, regardless of which surgeon or which one of its three hospitals was involved.

From screening a patient for the risk of a stroke before surgery, to making sure the patient has started on a daily aspirin regimen upon discharge, Geisinger's 40-step system makes sure every patient gets the recommended treatment.

At least one heart surgery patient, David Dunsuir, 65, was impressed by the care he received — and the doctors' and staff's efforts to explain things during the four days he spent at December at Geisinger's hospital in Wilkes-Barre, Pa.

The care, which included a few weeks of rehabilitation, was delivered "like clockwork," Mr. Dunsuir said recently. "I'm feeling fine."

For Geisinger, as with any hospital, the challenge is often in persuading the doctors to get on board. Before ProvenCare began, Geisinger's seven cardiac surgeons each delivered the care they believed was best for patients. And that care varied.

"We realized there were seven ways to

boston.com
The Boston Globe

Online
The Ledger
theledger.com

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Herald Tribune HEALTH/SCIENCE

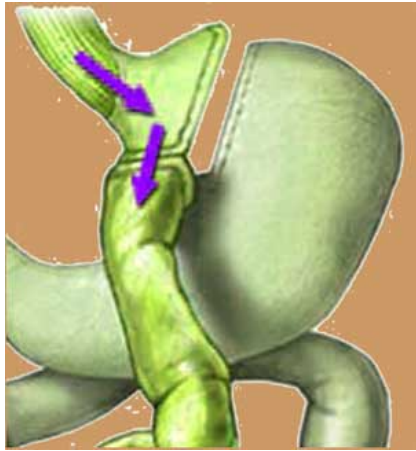
BMJ

May 24th, 2007 at the George Washington University Medical Center
HEALTH CARE: Hillary Remarks on Reducing the Cost of Health Care

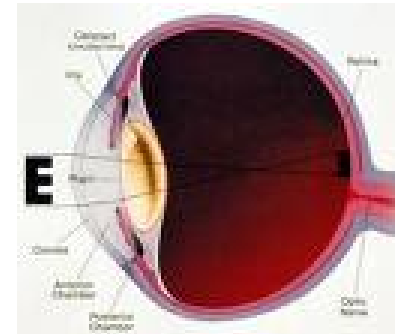
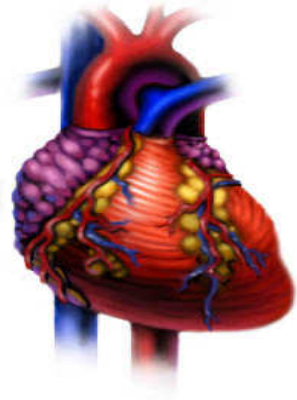
Heal • Teach • Discover • Serve

GEISINGER

ProvenCare[®]



- ✓ Elective CABG
- ✓ Elective Cataract Surgery
- ✓ Elective Total Hip Replacement
- ✓ Elective PCI (Percutaneous Coronary Intervention)
- ✓ Bariatric Surgery
- ✓ Low Back
- ✓ **Perinatal**



ProvenCare Perinatal Background Knowledge

- 23% of all individuals discharged from American hospitals are mothers or newborns
- Childbirth is the leading reason for hospitalization in the U.S.
- 6 of the 15 most commonly performed hospital procedures in the entire population are associated with childbirth
- Birth rates are reversing after a long decline
- After 2011, the number of births each year are expected to be the highest annual rate ever achieved in the U.S.

Sakala, C. & Corry, M. (2008). Evidence-based maternity care: What it is and what it can achieve. Milbank Report.

Kjerulff, K.H., Frick, K.D., Rhoades, J.A. & Hollenbeak, C.S., (2007). The cost of being a woman: A national study of health-care utilization and expenditures for female-specific conditions. *Women's Health Issues*, 17(2), 13-21.

Defining Perinatal *ProvenCare*[®]

Why was this work important?

- High Volume DRG
- Process unreliable and inefficient
- Opportunity to decrease LOS
- Potential to decrease cost of care
- Account for patients entering/exiting the system and ensure that the ProvenCare pathway is followed (1st prenatal visit through post partum)



Geisinger Context

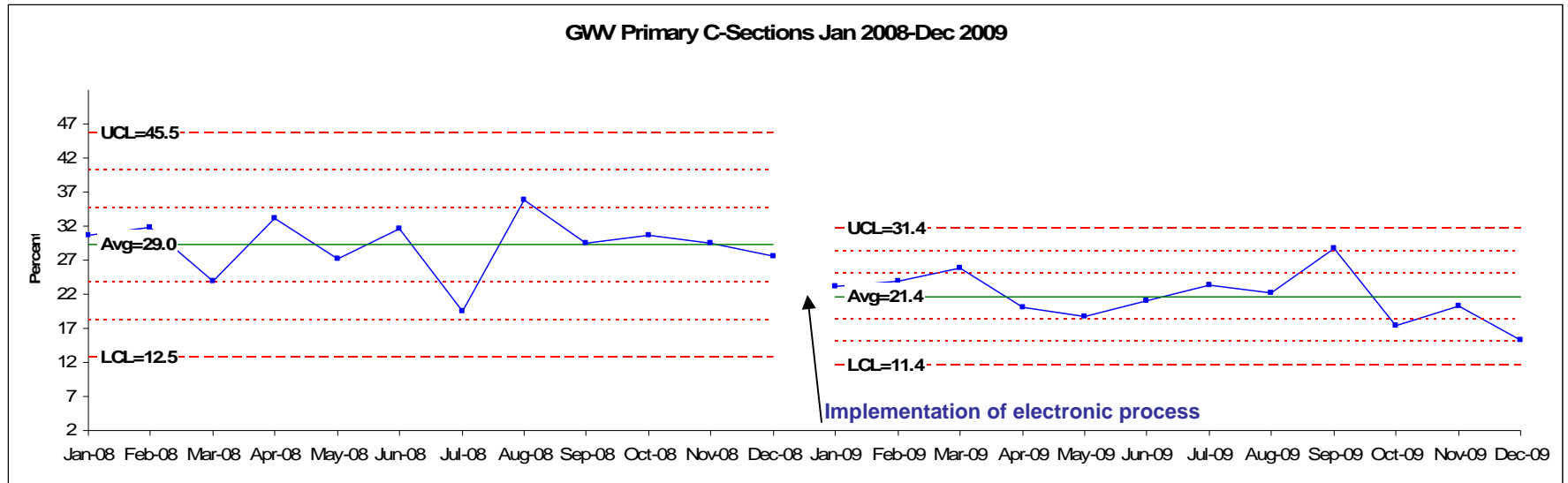
- ~5,000 Pregnancies per year
- ~4,500 + deliveries per year
- 66 Clinicians (26 MD's; 12 Residents; 7 Midwives; 14 NP's; 7 PA's)
- 22 Clinic Sites
- 4 Hospitals (2 non-Geisinger)



Perinatal ProvenCare[®] Goals

- 103 Discrete evidence-based elements of care are incorporated, measured and tracked for compliance
- Redesign, from the ground up, all aspects of provider workflow
 - Drive fundamental efficiency improvements
 - Increase patient safety and process reliability
 - Reduce/eliminate documentation redundancy
 - Streamline patient education and cut costs
- Seek observable reductions in C-section rates and premature births
- Enhance management of comorbid conditions
- Improve fetal/child health and wellness

ProvenCare Perinatal Quality Measures



Balancing the Message- AHRQ Patient Safety Indicator 17

- The numerator includes any of the following diagnosis codes: 767.0, 767.11, 767.3, 767.4, 767.5, 767.7, 767.8
- Subdural and cerebral hemorrhage (due to trauma or to intrapartum anoxia or hypoxia)
- Epicranial subaponeurotic hemorrhage (massive)
- Injuries to skeleton (excludes clavicle)
- Injury to spine and spinal cord
- Facial nerve injury
- Other cranial and peripheral nerve injuries
- Other specified birth trauma

Quality Performance- AHRQ Patient Safety Indicator 17

	Population of Mothers	Population of Babies	# of All Diagnoses birth trauma cases	Number of Excluded cases	Numerator based on PSI 17 definition	Birth Trauma Rate based on PSI 17 definition (per 1000 babies)
FY2008	2635	2888	20	5	15	5.19
FY2009	2786	3054	10	5	5	1.64

- At GWV, there is no change in PSI 17 Birth Trauma Rates although vaginal deliveries have increased (GWV remains below the national average)
- As a system, there is a statistically significant decline in PSI 17 for FY09 (p=0.047). The national average is 2.31

http://www.ahrq.gov/qual/nhqr07/measurespec/patient_safety.htm#rtraumt1

Select Quality Measures

- In the first 6 weeks of the 2009 flu season we administered more than twice the number of vaccines as the 2007 flu season
- 100% compliance with Postpartum Depression Screening achieved in November 2009
- Nutrition consults offered for appropriate patients

Select Quality Measures

- Collaborative management with the patients diagnosed with Gestation DM through MyGeisinger patient entered flowsheet
 - Current activation ~95%
 - Early trend suggests:
 - Lower incidence of insulin dependent gestational diabetes for moms who received care after ProvenCare implementation

Select Quality Measures

- **Quality Measures in process:**
 - NICU Length of Stay
 - NICU outcomes and reason for admission
 - Early trends suggest:
 - Lower incidence of spontaneous premature rupture of membranes (PROM) for moms who received care after ProvenCare implementation

Payer key business objectives

- Support the reengineering of care to deliver more **value**
- Align reimbursement incentives to reflect ProvenCare transparency
- Build a business case to ensure sustainability

Reimbursement Aligned via “Bundle Approach”

- Geisinger Health System accepts risk via a global payment for all related services and follow up care
 - Technical and professional
 - Physician, consultations, supporting clinicians
- Rewards team for optimal outcome
- Eliminates perverse incentives

A reasonable approach for GHS

- Began with diagnosis of pregnancy in the first or second trimester of care and continued through the delivery of a viable newborn by GHS providers
- Does not include care provided by non-GHS providers

A win/win business case

- GHP and GHS share savings from care improvement
- GHP gets consistent cost structure and outcomes
- GHS get better outcomes and improved cost of care
- GHS gets more volume over time by offering high quality care with transparency

High Value care yields a real win/win/win/win business case

- Patients get improved outcomes
- Employer gets healthier employees and lower premiums
- GHP gets more members
- GHS gets more volume

Step 1

- Define the episode length
 - Prenatal Period
 - Identification of pregnancy in the first or second trimester
 - Postpartum Period
 - Concludes at completion of postpartum visit 21-56 days post delivery

Step 2

- Define the episode scope

Perinatal example:

- Inclusions

- Identify episode trigger codes
- Only deliveries performed by GHS Providers after 12 weeks of continuous prenatal care

- Exclusions

- Typical
 - Members without continuous enrollment during the entire episode
 - Members with another carrier as primary
 - Late referrals of high risk patients

Step 3

- Create preliminary claims data set
 - Includes
 - All related services to the pregnancy admission
 - All related services during prenatal period
 - All related services during postpartum period
 - Apply Exclusions

Step 4

- GHP - Create Preliminary Episode Experience Summary and Code Review Pivot Tables
 - Prenatal
 - Procedure code review
 - Professional and Outpatient services only
 - Postpartum
 - Inpatient Readmissions
 - Diagnosis code review on historical services to identify routine follow-up and complications
 - Medical review on remaining inpatient claims to capture those not identifiable by diagnosis codes
 - Outpatient and Professional
 - Diagnosis codes identified through review

Step 5

- GHP - Creation of Final Episode Experience Summary
 - Filter the potential claims set to create a refined claims set with services related to the pregnancy and re-run the Episode Experience Summary
 - Establish **prenatal code list** (Outpatient and Professional only)
 - Establish **postpartum related diagnosis code list**
 - GHP estimates the **global package rate** based on Final Episode Experience Summary

Step 6

- GHS

- Reviews Final Episode Experience Summary and predicted trends to develop a **global package rate**
- Creates **Inclusion Matrix** that defines which related services are to be included based on the provider of service

Step 7

- GHS and GHP
 - Reconcile and negotiate final **global package rate**
 - Finalize **Inclusion Matrix**
 - Execute Contract