

The Cost-Estimation Department: A Step Towards Cost-Transparency in Radiology

Hansel J Otero MD, Summer L Kaplan MD,
Franco Cardillo MBA, Elizabeth Duffy, MHA

The Children's Hospital of Philadelphia



Background (I): Charges, Cost, and Reimbursement

“Health care prices are opaque, and patients and clinicians are equally in the dark about them”



AMA Journal of Ethics®
Illuminating the art of medicine

The Challenge of Understanding Health Care Costs and Charges

Vineet Arora, MD, MAPP, Christopher Moriates, MD, and Neel Shah, MD, MPP

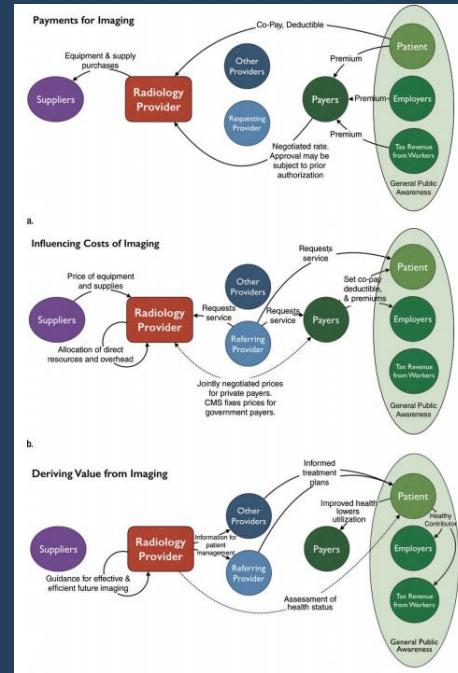
Term	Definition
Cost	To providers: the expense incurred to deliver health care services to patients. To payers: the amount they pay to providers for services rendered. To patients: the amount they pay out-of-pocket for health care services.
Charge or price	The amount asked by a provider for a health care good or service, which appears on a medical bill.
Reimbursement	A payment made by a third party to a provider for services. This may be an amount for every service delivered (fee-for-service), for each day in the hospital (per diem), for each episode of hospitalization (e.g., diagnosis-related groups, or DRGs), or for each patient considered to be under their care (capitation).

Background (II): Radiology Pricing and Costs: it's Complicated

Costing in Radiology and Health Care: Rationale, Relativity, Rudiments, and Realities

- The interchangeability that authors might use for the terms *cost*, *charge*, *price*, and *fee* can be a source for confusion
- The linear organization of a typical industry value chain does not reveal the complex cross-linking relationships that exist in the imaging industry value chain
- The cost of imaging is not a single value and is defined foremost by the perspective of the person or entity bearing the cost

Term	Definition	Example for Radiology and Health Care
Costing	System of computing cost of production by allocating expenditure to various stages of production or to different operations	ROC, RVU, ABCDABC
Charge	The monetary value that is requested by the seller/provider	A hospital assigns a charge of \$150 to a two-view chest radiograph.
Price	The monetary value that is paid by the purchaser	An insurance company pays a hospital 25% of a \$150 charge for a two-view chest radiograph. The price paid is \$37.50.
Cost	The monetary value of resources used or sacrificed or liabilities incurred in the performance of an activity	Based on the utilization and price of labor, equipment, and supplies, as well as the assignment of overhead, the acquisition and interpretation of a two-view chest radiograph costs a hospital \$30.
Direct cost	The cost of resources directly consumed by an activity	Technologist and radiologist effort in performing and interpreting a radiograph.
Indirect cost or overhead cost	A cost that cannot be identified specifically with or traced to a given cost object	Housekeeping services, building and grounds maintenance, utilities
Fixed cost	A cost that does not vary with the volume of activity. Incurred regardless of whether a procedure is performed or not.	Relative to a period of 1 year, the annual salary of a radiologist. The purchase of a CT scanner.
Variable cost	A cost that varies with changes in the level of an activity, when other factors are held constant. If procedure is not performed, then there will be no cost	Angiographic catheters, contrast material, part-time labor
Marginal cost	The incremental cost of the last unit produced	Assuming 10 CT scans are completed in a shift, the cost of one additional unenhanced CT scan during that shift will be near zero, as no additional resources are consumed, because of that scan.
Short run	Period of time in which quantities of one or more production factors cannot be changed	Typically considered to be less than 1 year
Long run	Amount of time to make all production inputs variable	For an annual employment contract it is 1 year. If a firm is unwilling to sell capital assets, then for a CT scanner it is 8–10 years and for a building it is 30–50 years
Charge master	List of a hospital's billable services and their charges	...
Cost object	An activity, output, or item whose cost is to be measured	Registering patients, performing an imaging procedure, a patient encounter
Cost driver	Any factor that causes a change in the cost of an activity or output.	Time dedicated to an activity, number of patients registered per hour, number of bills submitted and collected
Allocation base	A unit of measure that forms the basis for apportioning overhead costs to production departments	Total revenue collected, number of patient visits, square footage of building space
Operating margin	Revenue minus the operating expenses	Revenue remaining after paying for all direct and indirect costs for performing or interpreting an imaging examination.
Production department	An organizational unit that directly produces goods or services.	Lower overhead and direct costs result in greater residual funds to support strategic initiatives
Service department	An organizational unit that provides services to other service and production departments, but does not directly participate in the production of finished goods or services	Radiology, surgery, pharmacy, eye center, cancer center. Housekeeping, security, laundry, facilities and grounds management, pharmacy, human resources, infection control, information technology and management, health and safety, compliance, social services, contracting, purchasing, revenue cycle, compliance, legal, marketing, accounting, human resources, and general administration



Background (III): Radiology Pricing from a Patient's Perspective

Vox
EXPLAINERS POLITICS & POLICY WORLD CULTURE SCIENCE & HEALTH IDENTITIES MORE ▾
I thought people should shop more for health care. Then I actually tried it.
By Sarah Kliff | sarah@vox.com | Oct 19, 2015, 2:00pm EDT

USA TODAY
NEWS SPORTS LIFE MONEY TECH TRAVEL OPINION 52° CROSSWORD VIDEO SUBSCRIBE NEWSLETTERS STOCKS APPS
Need an MRI? It pays to shop around. Big time.

The Inquirer
DAILY NEWS nphilly.com
Health — Health Costs
One MRI is \$1,000 more than another. That's just the start of Philly's health-care pricing mysteries
Updated: FEBRUARY 20, 2018 — 10:12 AM EST

npr set station news arts & life music programs
SPECIAL SERIES planet money
Why Most People Don't Shop Around For Medical Procedures
October 9, 2015 · 4:53 AM ET
Heard on Morning Edition

Patients are encouraged to shop around for imaging, but:

“Comparing prices for health-care services can be time-consuming and frustrating”

“The system is a mess”

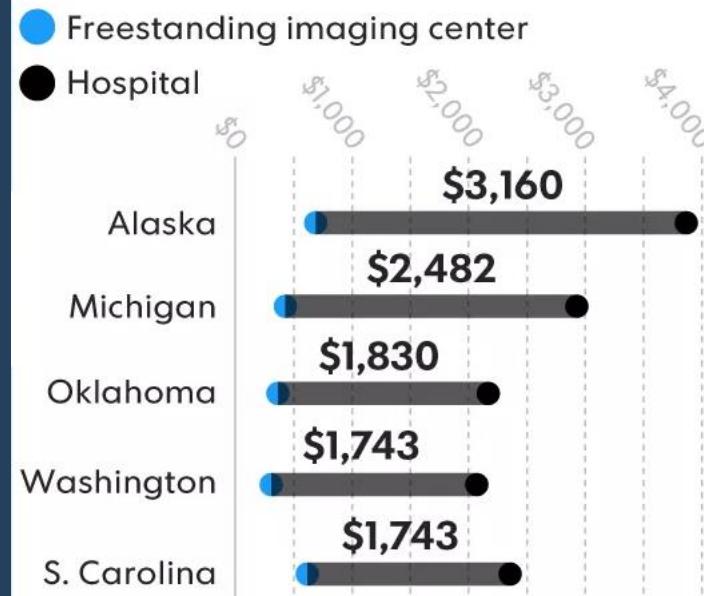
“I got a phone call from a woman who asked if I'd consider switching to a private imaging center nearby that charged about \$400 for an MRI — about half as much as the academic center cost”

“Now that prices are coming out of the shadows, people want to know—is that \$6,000 MRI so much better than a \$300 one with the same billing code two blocks away?”

THE WALL STREET JOURNAL.
HEALTH | JOURNAL REPORTS: HEALTH CARE
How to Shop Around and Save on Health Care
Prices can vary greatly for all kinds of health services. Follow these tips to get the best deals.

MRI PRICE RANGES: BIGGEST

Prices based on cost estimates for limb MRIs across 129 insurance companies:



SOURCE Amino
Jim Sargent, USA TODAY



The problem (I): High-Deductible Health Insurance

- Between 2006 and 2015, the average annual out-of-pocket costs per patient rose almost 230%, which unequally impacts patients covered with high-deductible health insurance plans (HDHP)
- In 2015, a majority (52%) of employers offered a minimum of one HDHP to employees (41% of employees chose HDHPs)
- The rapid growth of these (HDHP) plans is partly driven by the belief that cost-sharing obligations will encourage enrollees to shop for health care, switch to lower cost providers and save money

The Solution: Emphasize Quality?

- Radiology has been a major focus of early efforts to enhance consumer price transparency
- If consumers pay more attention to price than to quality, providers will be forced to compete primarily on price to attract patients
- Radiology value transparency in its current form might stimulate primarily price-based competition, erode provider profit margins, and disincentivize quality

The Intervention: The Cost-Estimation Department

- In December 2016, our hospital created “The Patient Cost Estimation Department” (PCE)
- The Patient Cost Estimation Department provides families with accurate out-of-pocket cost estimate based on their deductibles, coinsurances and copayments

Patient Cost Estimation



The Intervention: The Team

- 4 full time costs specialist: all with background in benefits management within our institution
- Supervisory and managerial support



The Intervention: Availability, and Recruitment

- How do patients find the PCE?
 - Through radiology department schedulers:
 - Provide information about the PCE and phone/email at the time of outpatient scheduling
 - Can directly transfer the call, if requested
 - Email available in the hospital website
 - Link (electronic form) in the patient's private EMR portal (mychop.chop.edu/mychart)
 - Email/phone from referring physicians office
- Patients scheduled for fluoroscopy and cardiac MR receive an courtesy to explain and offer CPE services

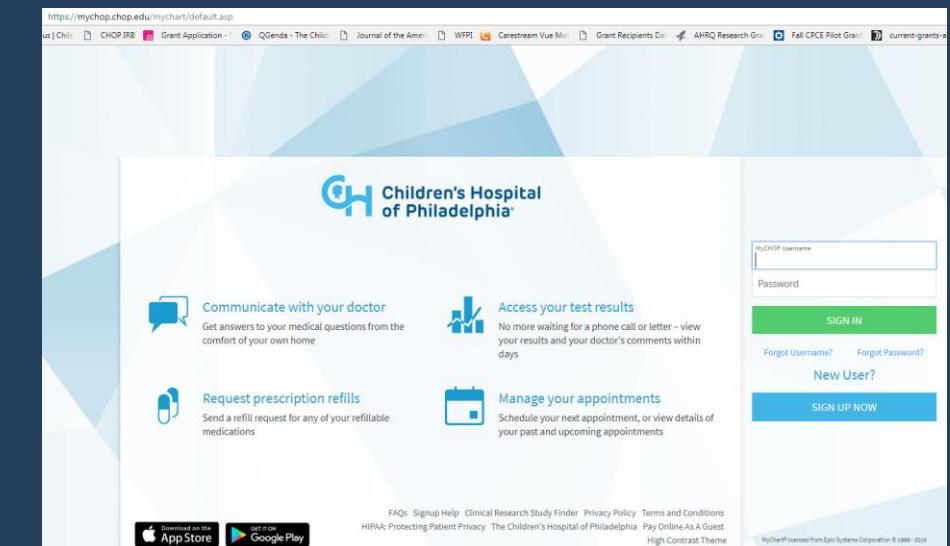
How much will your visit cost?

CHOP is committed to being transparent about costs and has launched a new service to help you determine what your share of costs are likely to be for a planned procedure for your child.

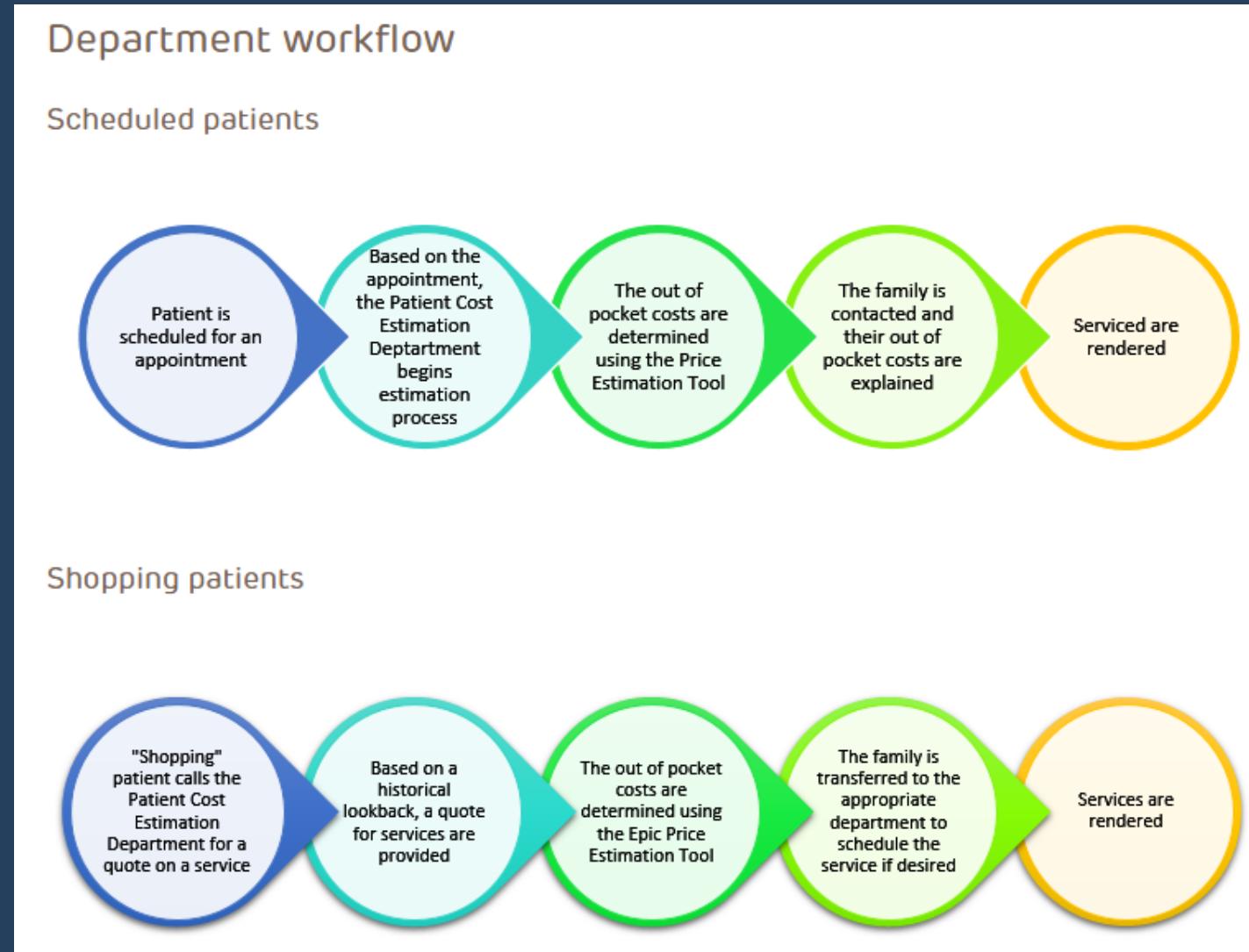
Our Patient Cost Estimation Department (PCE) was created because we know families are facing increased out-of-pocket health expenses, especially as high-deductible plans are more common. This information will help you make the best possible decisions for your family.

The PCE staff will work closely with the specialty division where your child has a scheduled appointment to provide a cost estimate for the anticipated services. Please note that the actual cost of a procedure may be higher or lower based on the specific clinical needs of each child.

To reach the PCE, you can send a request through your MyCHOP account or reach them via email at PatientCostEstimates@email.chop.edu.



The Intervention: Workflow



The Outcome: Initial Cost Estimates in Radiology

First year of services:

- 878 radiology cost estimates
- Average 4 estimates per day
 - Fluoroscopy (n=390)
 - Cardiac MR (n=273)
 - CT (n=105)



Outcome: The Road Ahead

- Improved patient/family experience
 - Currently collecting data (short post visit survey)
- Averted financially motivated “Patient/Family Complaints and Grievances”
 - Resulting averted revenue losses related to waiving of charges



Conclusion

Providing accurate estimates of out of pocket costs to patients is a proactive response to increasing demand for price transparency that results in lower number of billing related complains and decreases revenue losses related to those complains



Thanks!



oteroh@email.chop.edu

