2016 ANNUAL MEETING OF THE

Florida Radiological Society & Florida Radiology Business Management Association

The Light at the End of the Tunnel: Train or New Beginning?

Saturday, August 6, 2016

The Ritz-Carlton, Amelia Island
Amelia Island, Florida

Diagnostic Radiology Program
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Legislative Update

Alison Dudley
Lobbyist
Florida Radiological Society
Tallahassee, FL
ACR UPDATE

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ACR Council Vice Speaker
Cardiovascular and Interventional Radiologist
Marshfield Clinic
Marshfield, WI
The Steven G. Miles Keynote Socioeconomic Address:
Darwin Meets Roentgen:
Don’t Count on an Invisible Hand-Out

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Darwin Meets Roentgen: Don’t Count on an Invisible Hand-Out

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Professor and Vice Chair for Health Policy and Practice
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Emory University School of Medicine

Disclosure
I receive research support from the Harvey L. Neiman Health Policy Institute.

Wilhelm Conrad Roentgen
- 1845-1923
- German engineer and physicist
- In 1901, earned the first Nobel Prize in Physics for his work producing and detecting the X-ray

“I have seen my death!”
Anna Bertha Roentgen, 1886

Charles Darwin
- 1809-1882
- English naturalist and geologist
- Best known for his contributions to evolutionary theory, establishing that all species of life descended over time from common ancestors

“It is not the strongest of the species that survives, nor the most intelligent, but the one that is most adaptable to change.”

Adam Smith
- 1723-1790
- Scottish philosopher and economist
- Laid the foundations of classical free market economic theory

“The Invisible Hand”
Self-interested competition tends to benefit society as a whole by keeping prices low and incentivizing innovation and economic development.

Their Paths Never Crossed

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How Doctors Get Paid

The Good Old Days

The Great Society

Structured Pricing

- UCR
  - Usual, Customary, and Reasonable

- RBRVS
  - Resource Based Relative Value System

\[ \text{Structured Pricing} = \left[ \frac{W-YU}{W-GPCI} + \frac{PE-YU}{PE-GPCI} + \frac{ME-YU}{ME-GPCI} \right] \times CF \]

What Do We Want to Pay For?

\[ \text{Value} \]

54
What Does CMS Want to Pay For?

Medicare fee-for-service payments
  • 85% tied to quality or value by 2016
  • 90% tied to quality or value by 2018
All Medicare payments
  • 30% through alternative payment models by 2016
  • 50% through alternative payment models by 2018

How Do We Currently Determine Value?

- RBRVS
  • Resource utilization

But, Is That Really Value?

Value = \frac{\text{Quality}}{\text{Cost}}

Perspectives Matter!

- The health outcomes achieved...
- That matter to patients...
- Relative to the cost of achieving those outcomes

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What is Fee for Service?

FFS Paid on Best Practice Basis

Fee for Service = Fee for Volume

Why the Disconnect?

What Would They Think?
PQRS: Common Radiology Metrics

- All process based (i.e., not outcomes based)

- Specific metrics:
  - CT or MR for stroke: Documentation of hemorrhage, mass, infarct
  - Carotid duplex for stroke: Stenosis reported in reference to distal ICA diameter
  - Fluoroscopy: Documentation of radiation dose or exposure time
  - Central lines: Documentation of maximal sterile barrier technique
  - Mammography: Screening mammograms reported as "probably benign"
  - Bone scan: Documentation of correlation with relevant imaging

PQRS Documentation

CLINICAL HISTORY
Chronic renal failure, with failed dialysis fistula, and hyperkalemia. Central venous access was requested for urgent hemodialysis.

PROCEDURE
The procedure, options, and risks were reviewed. Maximal sterile barrier technique was utilized. After local anesthesia with 1% lidocaine, using real-time sonographic guidance, a 21-gauge single-wall needle was easily achieved into the right internal jugular vein using an anterior approach. The tract was converted with a micropuncture set to allow introduction of a J wire down into the inferior vena cava under fluoroscopic control. The tract was dilated to allow introduction of a 16 cm long triple lumen hemodialysis catheter. The catheter was subsequently advanced percutaneously with a second tract. Catheter care was provided by the hospital staff. There were no immediate complications. Total fluoroscopy time was 0.4 minutes.

COMMENT
The right jugular vein was patent and easily compressible. After placement of the central venous catheter, as described, the tip is seen fluoroscopically at the level of the right atrial and superior vena cava junction. Fluoroscopy demonstrated no evidence for a pneumothorax. Permanent images were obtained.

IMPRESSION
Uncomplicated imaging guided placement of temporary hemodialysis catheter.

PQRS: Early National Results

- Mean DR bonus in 2010: $2,811.39

- Qualified for bonuses:
  - 23.7% of radiologists
  - 16.3% of non-radiologists

- Registry reporting better than claims-based
  - Odds ratio 4.40 (95% CI 4.03-4.80)

What Would They Think?

Without physician, practice, or program changes... over 75% of radiologists may face mean penalties... of at least $2,654 in 2016... totaling an estimated $111,393,067 for the entire profession!
What Measures Matter?

The Washington Post

Many hospitals overuse double CT scans, data show

By Julie Appleby and JordanRow June 15, 2016

Hundreds of hospitals are routinely performing a type of chest scan that experts say should be used rarely, subjecting patients to double doses of radiation and driving up health-care costs.

Dose Matters…To Us!

Medicare abdominal computed tomography “double-scan” rates by specialty group.


Let’s Measure Stuff that Matters

Medicare Policy Initiatives and the Relative Utilization of “Double-Scan” CT

Jonathan L. Flug, MD, MPH; Joseph P. Spanheimer, MD, Harry S. Dugoff, MD, FACP; Estepal Miller, MD, FACP; Richard Gumaer Jr, MD

Introduction

Objectives

Methods

Radiologists

Non-Radiologists

Lower Cost

Higher Quality

Fee for Service

Accountable Episodes

Lower Cost

Higher Quality

Pay for Performance

Accountable Episodes

Fee for Service

Pay for Performance

The Inpatient Hospital Episode

- Focus of most “episode of care” bundled payment interest
- Metrics du jour have focused on hospitals
  - Length of stay
  - Readmissions
- Physicians have still been paid under FFS

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Inpatient Spending Distribution

Most spending in hospitals is for hospital services

Physicians don’t matter much, right?

Physicians Matter a Lot!

- Many policy makers miss the real cost (and value) of physicians
  - Yes, they don’t directly cost a lot, but...
  - They’re calling day to day health care shots!

Physicians Matter a Lot!

- Many policy makers miss the real cost (and value) of physicians
  - Yes, they don’t directly cost a lot, but...
  - They’re calling day to day health care shots!

- Who has control over...
  - Use of hospital services?
  - Involvement of other physicians?
  - Likelihood of readmission?
  - Appropriate use of post-acute care?

- Physicians!

Perspectives on Slicing the Pie

- It will all soon be one big pie!

Re-slicing the Pie

- What if we could cut waste and inefficiencies by 15%?

Re-slicing the Pie

- Opportunities for savings

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ICE-T: Professional Share Estimator

Armed with Information

Geography Matters

The Extremes

Don’t Forget Turf

Or, Regional Change Rates

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Big Spending Means Big Opportunities

Spiraling Savings

Accountability is Key

Quality Safeguards are Critical

Report Cards

My Report Card: Physician Compare
What Would They Think?

Payment Systems are Evolving

It is not the strongest of physicians that survives, nor the most intelligent, but the one most responsive to change.
Back to the Future - The Impact of the 2016 Federal Elections on U.S. Radiology

Frank J. Lexa, M.D., MBA
Project Faculty, Spain and East Asia Regional Manager, the Global Consulting Practicum &
Adjunct Professor of Marketing, The Wharton School, The University of Pennsylvania
Chief Medical Officer, The Radiology Leadership Institute and Chair
of the Practice Leaders Commission of the American College of Radiology
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Back to the Future- The Impact of the 2016 Federal Elections on U.S. Radiology

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- How is value measured and rewarded as FFS is phased out
- Federal reimbursement
- Private shadowing
- Unreimbursed care
- Declining support for medical training—particularly specialists


- Degradation of independent private practice
- Power shift from physicians to hospitals
- Shifts to hospital employment
- Shifts to corporate employment in national teleradiology companies
- Loss of outpatient imaging
- Turf battles

ACR Advocacy-2016

- Lung screening
- MPPR
- MIPS
- Mammo wars
- Self referral and turf
- RUC, ICD and CPT
- CDS
- ...

The election as of today

- Current president is a lame duck
- Supreme court is one justice short and effectively split 50/50 with regard to party line voting
- Congress
  - House has 246 Republicans out of 434 (one vacancy as of this writing)
  - Senate has 54 Republicans, 44 Democrats and 2 independents who usually vote with Democrats
- Governors- 31 Republicans, 18 Democrats, 1 Independent
The election as of today

- Presumptive Republican Party candidate-Donald Trump
- Presumptive Democratic Party candidate-Hillary R. Clinton

Meet the candidates

Clinton Biography

- B. 1947 in Chicago.
- Wellesley then Yale Law. Staffer on Judiciary Committee of the house during Nixon impeachment hearings. Taught law in Arkansas, later attorney in private practice.
- First lady of the United States
- 2001-elected Senator from NY
- Lost primary bid for presidency in 2008
- Secretary of State 2009-2013

Trump Biography

- B. 1946 in Queens. Billionaire real estate developer, TV personality -controversial how much value created given inherited wealth
- No elected positions in government-explored running for president in 2000 as a Reform Party candidate
- College: Fordham then transferred to Wharton undergraduate for final two years

The presumed candidates have some things in common:

Both will have survived a difficult and bitter primary process
Both have high negatives with the electorate-dissident and 3rd party risks are real

Views of the 2016 Front Runners

<table>
<thead>
<tr>
<th>Views of the 2016 Front Runners</th>
<th>Trump</th>
<th>Clinton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable</td>
<td>24%</td>
<td>31%</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>57%</td>
<td>52%</td>
</tr>
<tr>
<td>Undecided/Don’t know enough</td>
<td>19%</td>
<td>16%</td>
</tr>
<tr>
<td>Source: ABC News, Yahoo News</td>
<td></td>
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</tr>
</tbody>
</table>

This will be a historic election..
Wildcards

Third party candidacy
Record low (or high) turnout
Candidate withdrawals
Candidate substitutions at the conventions
Opposition research—treasure trove:
  Taxes
  National security
  Howard Stern tapes…

Candidate Clinton on health care

• As First lady worked on CHIP
• Will defend Affordable Care Act
• Increase tax credits on exchanges and limit % of income to health care to 8.5%
• State incentives to expand Medicaid
• Outreach to increase Medicaid enrollment
• Exchange participation regardless of immigration status
• Develop “public option”
• Reduce copays, deductibles and drug prices
• Support value and quality mechanisms

Candidate Trump on health care

• Repeal Obamacare, especially individual mandate
• Free market principles, ie. remove state boundaries to health insurance
• Full tax deductibility of consumer health insurance
• Expand HSAs and allow rollover
• Price transparency
• Block grant Medicaid
• Reduce regulatory blocks on drugs and devices

Implications for radiology

• Increase versus decrease in Federalization of healthcare
  • California example
• Consumer choice versus narrow networks versus no choice
• Single payer is possible if the “public option” is enacted
• Micro-regulation versus capitation
• Speed of shift to value based purchasing and what value is measured and rewarded

Big questions that will affect the answers

• VP decisions
• Third party candidates
• Fractiousness of the conventions
• Turnout on election day
  • How many people
  • Who ends up voting

Scenarios

• Hillary wins, Congress stays Republican
• Hillary wins, Senate flips to Democratic
• Hillary wins, Senate and House are Democratic
• Donald wins, Congress stays the same or slightly more Republican
• Donald wins, Senate flips to Democratic
• Donald wins Senate and House are Democratic
A perspective on Value:
The McNamara Fallacy

1. Measure whatever can be easily measured
2. Disregard whatever cannot be measured easily
3. Presume that whatever cannot be measured easily is not important
4. Presume that whatever cannot be measured easily does not exist


A perspective for Radiology Leaders in 2016

“Though much is taken, much abides, and though we are not now that strength which in old days, moved earth and heaven; that which we are, we are; One equal temper of heroic hearts, made weak by time and fate, but strong in will to strive, to seek, to find, and not to yield.”

-Tennyson, “Ulysses”

What should we do?

1. Like Chicago (and Philly) Vote early, vote often
2. Be involved in the other elections- Congressional, state and local candidates matter
3. Pay very close attention- this election will matter for radiology
4. Build credibility and bring data-Harvey Neiman Policy Institute, Comparative Effectiveness Data etc.
5. Keep perspective
IMAGINING THE FUTURE
OF THE RADIOLOGIST:
OPPORTUNITIES AND CHALLENGES

Garry Choy, M.D.
Staff Radiologist, Massachusetts General Hospital Department of Radiology
Assistant Chief Medical Information Officer,
Massachusetts General Physicians Organization
Instructor, Harvard Medical School
Boston, MA
Disclosures

- Chief Medical Officer, Tesla Health
- No other disclosures
**Machine vs. Man**

- Learn by memorization: Shallow Learning
- Learn by abstraction: Deep Learning

- Given examples of presence and absence of a specific concept...

- Humans adjust neural weightings to solve for current and future examples.

- Computers use storage to memorize all examples exactly as they appear.

**Deep Learning**

**How?**

**Artificial Neural Networks**

**Deep Learning of Objects**

- Training Process
  - Untrained Neural Network

  - Neural Network trained to identify all images of Dogs, Cats, Fishes and Humans

**Deep Learning of Objects**

- Application Process
  - A Neural Network trained to identify all images of Dogs, Cats, Fishes and Humans
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Automated Detection, Localization, and Classification of Traumatic Vertebral Body Fractures in the Thoracic and Lumbar Spine at CT

From the Department of Radiological Sciences, University of California–Irvine, Orange, Calif

The fully automated computer system detects and anatomically localizes vertebral body fractures in the thoracic and lumbar spine on CT images with a high sensitivity and a low false-positive rate.

Conclusion 92 percent sensitivity for fracture detection and localization to the correct vertebra.
MGH Center for Applied Data Science

MGH Center for Applied Data Science

Diagnose

Test

Treat

Manage

Challenges

• Human vs Machine
• Mammography
• WorkFlow - "Day in the Life of a Radiologist"
• Industry + Clinical Collaboration & Validation
• Reimbursement
• Future of Radiologist Job

Medical Subspecialities as Star Wars Characters

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Radiology in R2D2

R2D2 doesn’t say much; neither do radiologists, particularly if findings are negative. But when either pop up, everyone listen. Neither is perfect though. R2D2 has been undone by enemy fire, while radiology always notes incidental findings.

CHALLENGES

• HUMAN + MACHINE
• MEDICO-LEGAL
• WORKFLOW - “DAY IN THE FUTURE LIFE OF A RADIOLOGIST”
• INDUSTRY + CLINICAL COLLABORATION & VALIDATION
• REIMBURSEMENT
• FUTURE OF RADIOLOGIST JOBS

CHALLENGES

• RADIOLGY = CONSTANT INNOVATION AND REDEFINITION
• WE NEED TO DICTATE OUR FUTURE

Thank you

Garry Choy MD MBA
gchoy@mgh.harvard.edu

References

• Keith Dreyer MD
• Tom Schultz
• Synho Do PhD
• Stuart Pomerantz MD
• MGH Center for Data Science

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DE-COMMODITIZING RADIOLOGY: 
IS IT POSSIBLE AND SHOULD YOU DO IT?

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Project Faculty, Spain and East Asia Regional Manager, the Global Consulting Practicum & 
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Chief Medical Officer, The Radiology Leadership Institute and Chair 
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Decommoditizing Radiology: Is it possible and should you do it?

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Chief Medical Officer, The Radiology Leadership Institute and Chair, Practice Leaders Commission, the American College of Radiology

Learning Objectives
1. Understand why the measure of our value has changed
2. Develop strategies for creating new value, measuring and documenting it and getting credit for it
3. Prepare for radical changes in our practices

Facing Change: Myths and Reality

Change is inevitable - true
Change is always bad - false
Change is always good - false

Traditional Sources and Measures of Value in Radiology
1. Fee for service - professional fee
2. Technical component or share of global
3. Management fees, medical director fees, etc.
4. Direct and indirect payment for educational and research efforts

Problem #1 Decline in Fee for Service Dx Rad Reimbursement

Problem #2: The shift to value is on

HHS has set a goal of tying 30 percent of traditional, or fee-for-service, Medicare payments to quality or value through alternative payment models, such as Accountable Care Organizations (ACOs) or bundled payment arrangements by the end of 2016, and tying 50 percent of payments to these models by the end of 2018. HHS also set a goal of tying 85 percent of all traditional Medicare payments to quality or value by 2016 and 90 percent by 2018 through programs such as the Hospital Value Based Purchasing and the Hospital Readmissions Reduction Programs. This is the first time in the history of the Medicare program that HHS has set explicit goals for alternative payment models and value-based payments.
Value versus Volume

“FFS is the dominant physician payment method in the United States,[1] it raises costs, discourages the efficiencies of integrated care,….”


Do Health Care Expenditures Create Value?

“There is no correlation between the heightened spending and the health of the country’s citizens.”

- Lei Haihao, deputy director general of the Beijing Health Bureau

Measuring Value?

There are over 1000 hospitals in the US that currently market themselves as being “Top 100”.1

There are only 5,686 hospitals in the US

1. If not then we devolve to being a commodity?

Core question- can the value of radiology be increased?

Definitions

Commodity: Is uniform in quality between companies that produce/sell it. You cannot tell the difference between one firm’s product and another.

Ergo: Lack of Product or Service Differentiation

QED: Traded solely on price

Throwing Down the Gauntlet

We suggest that Medicare immediately expand the current program nationwide. As soon as possible, Medicare should extend competitive bidding to medical devices, laboratory tests, radiologic diagnostic services, and all other commodities.12 Medicare’s competitively bid prices would then be extended to all federal health programs.13 To oversee the process, we recommend that Medicare establish a panel of business and academic experts. Finally, we recommend that exchanges — marketplaces for insurance starting in 2014 — conduct competitive bidding for these items on behalf of private payers and state employee plans. N Engl J Med 2012; 367:949-954 September 6, 2012 DOI: 10.1056/NEJMsb1205901

Authors on next slide
Should Radiology be a Commodity?

Commodities are often the result of failures:
- Failure of management
- Failure of imagination
- Failure to innovate
- Failure to understand a market
- Failure not just of you, but of your competitors
- Form of group failure in a marketplace

What Could Drive the De-commoditization (increase the value) of Radiology?

ACO’s and related novel forms of practice that move from volume to value based purchasing (Maybe)

Re-thinking the value chain of what we can and should do

Innovation

Innovation

Innovation

Formal Structures that Address Value and Volume

- ACO: Medicare Shared Savings Model
  - Federal
- ACO-Pioneer Model
- Private sector ACO
- CCO
- Comprehensive Primary Care Initiatives
- Bundling Contracts
- Other forms of at risk contracting

Real value creation vs. simplistic notions of radiology value

<table>
<thead>
<tr>
<th>MIPS incentives</th>
<th>APMs</th>
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</thead>
<tbody>
<tr>
<td>12%</td>
<td>+5% incentive (2019-2024)</td>
</tr>
<tr>
<td>11%</td>
<td>Downside risk</td>
</tr>
<tr>
<td>23%</td>
<td>2012</td>
</tr>
<tr>
<td>27%</td>
<td>2011</td>
</tr>
<tr>
<td>3%</td>
<td>2010</td>
</tr>
<tr>
<td>1%</td>
<td>2009</td>
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</table>

The McNamara Fallacy

1. Measure whatever can be easily measured
2. Disregard whatever cannot be measured easily
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Value Chain for Radiology Services in the Early 21st Century

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Value Chain for Radiology Services in the Early 21st Century

1. Consultation for appropriate imaging
2. Equipment and protocol optimization
3. Personalization of imaging
4. Clinical consultation with referring medical professionals
5. Discussion of results with patients
6. Promotion of good health and advocacy

The “high value” Radiologist

- A priori involvement in decisions about imaging: who, when, how, what, etc.
- Service metrics
- Process and cost improvements
- Customer satisfaction: patients, referring MDs, administrators, etc.
- Much greater government and public involvement and oversight


The “high value” Radiology Group

- IT backbone for the health enterprise
- Utilization Management – optimize imaging, consultation
- Screening diagnostics for primary care physicians (and non MDs)
- Quality and Service
- Disease management

Breslau J. “The Opportunities for Radiology Participation in ACOs” Accountable Care News vol3, #8, August 2012, p. 1

System Synergies

- More efficient diagnosis
- Chronic Disease management
- Co-Marketing
- Empowering primary care doctors
- Increase efficiencies of:
  - ICU
  - ED
  - Surgical suites
- Improve communication and coordination through inpatient and outpatient experiences

Practical projects to increase value

- Comparative effectiveness
- Increase the velocity of care
- Improve service
- Embedding radiologists (partly)
- Service lines
- Geographic and temporal matching
The best questions to ask when you are “de-commoditizing” something are:
1. Who are the Customers
   - Referring MDs
   - Technologist
   - Hospital and ACO administrators
   - Patients and family
   - Payors
   - Government

The best questions to ask when you are innovating are: #2 What do they want?
1. What do they want?
2. What could be better?
3. What shouldn’t we do?
4. What do you like about our competitors?
5. What would help you do your job?
This creates a matrix of opportunities by customer segment

What Should Radiology Groups Do?
1. Don’t limit your value to film reading
2. Put your patients first
3. Pay very close attention to value based schemes
4. Listen to your customers
5. Build bridges to health care providers
6. Use the matrix to find novel ways to provide services
7. Keep innovating and improving

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NON-PHYSICIAN PROVIDERS: OPPORTUNITIES FOR RADIOLOGY IN THE NEW TEAM BASED WORLD

Richard Duszak, M.D., FACR, FRBMA
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Emory University School of Medicine
Atlanta, GA
Chief Medical Officer and Senior Research Fellow
Harvey L. Neiman Health Policy Institute
Reston, VA
Non-Physician Providers: Opportunities and Challenges for Radiology in our New Team Based World

Richard Duszak, MD, FACR, FSIR, FRBMA
Professor and Vice Chair for Health Policy and Practice
Department of Radiology and Imaging Sciences
Emory University School of Medicine

Disruptive Innovation

A process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves up market, eventually displacing established competitors.

http://www.claytonchristensen.com/key-concepts/

Non-Physician Provider Disruption

“Nurse practitioners are capable of treating many ailments that used to require a physician’s care.”

“We need diagnostic and therapeutic advances that allow nurse practitioners to treat diseases that used to require a physician’s care.”

Non-Physician Provider Disruption

“Nurse practitioners are capable of treating many ailments that used to require a physician’s care.”

“We need diagnostic and therapeutic advances that allow nurse practitioners to treat diseases that used to require a physician’s care.”

Who’s Not on That List?

“Radiology, which was Merritt Hawkins’ most requested specialty in 2001, 2002, and 2003 did not make the list of Merritt Hawkins’ top 20 most requested specialties in 2013.”

Us!

Top 20 Most Requested Searches by Specialty

From Merritt Hawkins.


“The nation will face a shortage of between 46,000 to 90,000 physicians by 2025.”

“The doctor shortage is real – it’s significant – and it’s particularly serious for the kind of medical care that our aging population is going to need.”

AAMC. https://www.aamc.org/newsroom/newsreleases/426166/20150303.html

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NPPs are Here to Stay!

“If these practitioners are fully integrated into the delivery system and allowed to practice consistent with their education and training, this growth can help assure access to cost-effective care across the nation.”

Agenda

- Definitions
- Training and licensure
- Billing and compliance
- NPPs within your practice
  - Diagnostic radiology
  - Interventional radiology
- NPPs outside your practice
- Closing thoughts

Non-Physician Providers

- Technologists
- Physician Assistants
- Nurses
  - Radiologic Technologists
  - Radiologist Assistants
  - Registered Nurses
  - Nurse Practitioners

Billing is Binary

Qualified Healthcare Professional

- A “physician or other qualified health care professional” is an individual who is qualified...
- by education, training, licensure/regulation (when applicable), and facility privileging (when applicable)...
- who performs a professional service within his/her scope of practice...
- and independently reports that professional service.”

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Clinical Staff Member

- A person who works under the supervision of a physician or other qualified health care professional and...
- who is allowed by law, regulation, and facility policy to perform or assist in the performance of a specified professional service...
- but who does not individually report that professional service.

Independent Medicare Reporting

I'm not defining practitioner. Medicare is!

Non-Physician Providers

- Technologists
- Physician Assistants
- Nurses

Non-Physician Providers

- Radiologic Technologists
- Radiologist Assistants
- Physician Assistants
- Nurses
Non-Physician Providers

- Techologists
- Physician Assistants
- Nurses

Shameless Self Referncing

NPPs in Radiology
- Radiologist assistants
- Physician assistants
- Nurse practitioners

Radiologist Assistants
- Two pathways:
  - RPA (Radiology Practitioner Assistant)
  - RA (Radiologist Assistant) → RRA (Registered Radiologist Assistant)
- Initial training as radiological technologists
- Additional advanced radiology training
  - Usually BS degree
- Some states recognize separately from RTs
- Medicare does not recognize as QHPs
Radiologist Assistants

- Two pathways:
  - RPA (Radiology Practitioner Assistant)
  - RA (Radiologist Assistant) → RRA (Registered Radiologist Assistant)
- Initial training as radiological technologists
- Additional advanced radiology training
  - Usually BS degree
- Some states recognize separately from RTs
- Medicare does not recognize as QHPs

Physician Assistants

- Direct PA training pathway
- Medical school "lite" pathway
  - Masters in Physician Assistant Studies (MPAS), Health Science (MHS), or Medical Science (MMSc)
- No formally recognized training programs in radiology
- Most states recognize PAs, but scope of practice varies
- Medicare recognizes PAs as QHPs

Nurse Practitioners

- Initial training as registered nurses
- Additional advanced clinical nursing training
  - MSN, but now many DNP programs
- No formally recognized training programs in radiology
- Most states recognize NPs separately from RNs, but scope of practice varies
- Medicare recognizes NPs as QHPs

Radiologist Assistants

- Only 9 approved RA training programs
- Approximately 650 employed as RAs
- NPs: 205,000
- PAs: 95,000
- Ready to go!
  - Many barium services
  - Many minor IR services

Physician Assistants

- Direct PA training pathway
- Medical school "lite" pathway
  - Masters in Physician Assistant Studies (MPAS), Health Science (MHS), or Medical Science (MMSc)
- No formally recognized training programs in radiology
- Most states recognize PAs, but scope of practice varies
- Medicare recognizes PAs as QHPs

Nurse Practitioners

- Initial training as registered nurses
- Additional advanced clinical nursing training
  - MSN, but now many DNP programs
- No formally recognized training programs in radiology
- Most states recognize NPs separately from RNs, but scope of practice varies
- Medicare recognizes NPs as QHPs
Billing and Compliance Considerations

1. Don’t submit false claims
2. Physicians and NPPs get paid differently
3. Appropriate supervision is critical
4. NPPs are not trainees

Claim Submission 101

- Claims can only be billed for services provided in accordance with applicable laws, regulations and coverage policies.
- All claims require an attestation that services were so rendered.
- Claims submitted under false pretenses can be construed as “false claims.”

Don’t Be Him

Only Physicians Get Paid 100%

- Both physicians and non-physicians are paid under the Medicare Physician Fee Schedule
  - Physicians are paid at 100% of MPFS
  - NPPs are paid only if recognized by Medicare, and then only at 85% of MPFS
- When thinking about billing for services, think carefully about who will be submitting the claim

Medicare Supervision Levels

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definition</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General Supervision</td>
<td>Furnished under the physician’s overall direction and control</td>
</tr>
<tr>
<td>2</td>
<td>Direct Supervision</td>
<td>Physician must be present in the suite and immediately available for assistance and direction</td>
</tr>
<tr>
<td>3</td>
<td>Personal Supervision</td>
<td>Physician must be in attendance in the room during the performance of the procedure</td>
</tr>
<tr>
<td>9</td>
<td>Concept does not apply</td>
<td>Not a service for which supervision applies</td>
</tr>
</tbody>
</table>

Only physicians may supervise others!
Medicare Supervision Examples

- General
  - Radiography
- Non-contrast CT or MR
- Direct
  - Contrast enhanced CT or MR
- Personal
  - Most fluoroscopic guided procedures
  - Supervision and interpretation
- Does not apply
  - Minor or major surgical procedures

Supervise RAs Carefully

“...the limitations imposed on billing for the services they perform negatively affect using the services of these professionals and increase the level of physician involvement in every clinical setting.”

Trainee Supervision

“In order to bill for surgical, high-risk or other complex procedures, the teaching physician must be present during all critical and key portions of the procedure and be immediately available to furnish services during the entire procedure.”

Teaching physician rules only apply to ACGME trainees!

Roles in Diagnostic Radiology

- Almost all NPP services are non-billable
- That doesn’t mean that they’re not valuable!
- Value-added services
- Interpretation services
- Diagnostic fluoroscopy services

NPP Care Coordination

- Aligned with Imaging 3.0 “beyond the report” value added services
- Triage and facilitation, utilization management, and care coordination

Using care coordinators, we actively follow up on patients with suspicious neoplastic findings on cross-sectional imaging, both inpatient and outpatient, and expedite clinical consultation with oncologists. In 2014, compared with 2013, we were able to reduce time from initial imaging to biopsy by 3 whole days for inpatients by implementing this program. Not only did this patient-centric program decrease the length of stay and costs for our patients, it also decreased the likelihood that patients would be lost to follow-up. In the end, the group collectively achieved goal performance, made sustainable changes to the way lung nodule biopsies are performed, addressed referring physician and patient concerns, and lowered cost by reducing repeat biopsies, all while improving the quality of care.

NPP Preliminary Reporting

- In controlled environments...
  - Quality is good
  - MD productivity improved
  - Turnaround times shorten
- General radiography, mammography, and emergency radiology

We conclude that properly trained, evaluated, and supervised PAs can interpret mammograms. Legal, ethical, and ethical considerations dictate that this can best be accomplished under the direction of radiologists who are well trained in mammography.
Gastrointestinal fluoroscopy services require personal supervision. Previously restricted to only the non-hospital setting, but now applies to hospital services as well. Ability to bill for RA performed GI fluoroscopy services is limited to only those cases where the physician provides personal supervision. Many quality, regulatory, and political obstacles exist to NPs or PAs providing such services independently.

Roles in Interventional Radiology
- Non-procedural clinical care
- Procedural services

IR Clinical Services
- NPs and PAs can capably fulfill nonprocedural clinical duties vital to the day-to-day function of a procedural diagnostic radiology or an interventional radiology service.
- Only selected services are billable.
- But, do not underestimate the huge value of non-billable services in terms of service, quality, and physician time.

Billable vs. Non-Billable Clinical Services
- RAs cannot bill.
- NPs and PAs can bill for services, but only if they meet specific CPT Evaluation and Management (E&M) code guidelines.
- These guidelines are generally the same as those for physicians.

Clinical Encounters: What’s Billable?
- New or follow up office patient
- New or follow up hospital patient
- If an NP or PA performs the bulk of the encounter documentation, billing under his/her NPI (at 85% of MPFS) is probably most practical and compliant.
- 15% “loss” is usually well offset by opportunity cost considerations.

Clinical Encounters: What’s Not Billable?
- Services bundled into a procedure itself are never separately billable.
- Typical bundled services
  - Routine paperwork
  - History and physical
  - Discharge coordination
  - Follow up planning
- But, still a great return on investment
  - Service and quality
  - Opportunity cost considerations.
NPP Procedural Safety

- Paracentesis (Gilani, 2009)
- Non-targeted liver biopsies (Murphy, 2014)
- Venous access (Silas, 2010; Benham, 2007)
- Coronary angiography (Krasuski, 2003)

Expanding NPP Procedural Roles

- For non-implanted central lines, NPP "market share" increased from 0% in 1992 to 7% in 2011.

But, Battles Still Exist

- "Given the numerous hurdles involved in obtaining Medicare reimbursement, that percentage growth suggests an increasing national acceptance by institutional credentialing bodies, state licensure boards and payers alike."
- In credentialing NPPs, data will be your friend
  - Procedure logs
  - National benchmarks

NPPs Outside of Radiology

- "If these practitioners are fully integrated into the delivery system and allowed to practice consistent with their education and training, this growth can help assure access to cost-effective care across the nation."

NPP Roles Outside of Radiology

- "We need diagnostic and therapeutic advances that allow nurse practitioners to treat diseases that used to require a physician’s care."
NPP Roles Outside of Radiology

NPP Imaging Ordering


2010-2011 Medicare 5% Research Identifiable Files
8,114,207 outpatient E&M visits
For acuity matched encounters, NPPs 1.3x more likely to order imaging

The Case for Clinical Decision Support?

Summary

- Disrupt or be disrupted
- NPPs can enhance your practice in many ways
  - Some are financially quantifiable
  - Many are not
- As medicine increasingly becomes a team sport, NPPs will become increasingly relevant, both within your practice and from outside
- Accept reality and proceed accordingly
Why Is Culture Change So Difficult and Yet So Important

Lawrence R. Muroff, M.D., FACR
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Clinical Professor of Radiology
University of Florida and University of South Florida Colleges of Medicine
Why Is Culture Change So Difficult, Yet So Important?

Lawrence R. Muroff, M.D., FACR
CEO & President
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What Is Culture?
Culture is the way that a like-minded group of individuals think and act. The “culture of radiology” has both good and bad elements.

Radiology Culture- The Good
1) Democratic (often to a fault)
   a) Equal voice, vote, and income stream
2) Low buy-ins to attract the “best and the brightest”
3) Outstanding quality of life
4) Continually changing technology (intellectually challenging)

Radiology Culture- The Bad
1) A mixture of denial and entitlement
2) Dysfunctional groups
   a) Inability to make rapid decisions
   b) Reluctance to deal with problematic partners/associates
3) A resistance to needed change

Why Do We Have to Change?
1) What will the practice of radiology look like in the near future (particularly if we don’t change our behavior)?
2) What are the trends that will influence what we do and what we earn?
If we want to prepare for the future, we have to know what it will look like.

Radiologists tend to look backwards, not forward.

Wouldn’t it be great if 2016 (and beyond) looked like 2009- or better yet, 2005?

It would be great, but it’s not going to happen!

Dr. Ben Strong- CMO vRad
1) Clinicians don’t care about talking to you or having you talk to their patients- I know; I once was a clinician
2) The only thing that radiologists do of importance is to provide an interpretation
3) The site where that interpretation is generated is irrelevant, as long as it is timely and accurate
4) Imaging 3.0 is dead on arrival

2 Different Views of Radiology
Dr. Bibb Allen- Chair, ACR BOC

1) Radiologists must be visible to our patients and our referring physicians
2) We must add value to the diagnostic and therapeutic approach to our patients
3) We should be active participants in the decision-making and strategic planning of our hospitals
4) Imaging 3.0 provides a blueprint for our actions and those of our specialty

Which view of radiology do you embrace? Do you believe that neither position is valid and that you can practice as you have in the past and still survive/thrive in the times ahead?

Many radiologists hope that Dr. Strong is wrong and that Dr. Allen’s view is the correct one. A large segment appears to believe that doing nothing would be the “path of least resistance” and certainly would be the option of choice for them.

Radiologists have had it too good for too long-

David C. Levin, M.D., FACR
Emeritus Chair, Thomas Jefferson

Table of Contents
Radiology’s “cheese” has been moved, and radiologists are being forced to confront non-traditional issues, protect against aggressive competition, and cope with practice-threatening trends.

This is not the time for “business as usual”; however-

95% of ACR Councilors said (May 2012 AMCLC) that they believed that radiologists would not change until the pain of the status quo far exceeded the potential pain of changing.

What Is the Argument Against Doing Nothing?

1) Reimbursement is declining and “increasing productivity to compensate” is a failed strategy
2) Radiologists are losing their hospital contracts in record numbers throughout the country
3) National entrepreneurial entities are aggressively pursuing hospital contracts and sometimes getting them
4) Alternative payment models are mandating a “different” approach to patient care
5) If we don’t participate as active team members and show value/significance in the new health care environment, then others will be happy to take what we have- and in many cases they will be able to do so

What does it take to change culture?
Kotter’s Elements to Facilitate Change
1) Establish a sense of urgency
2) Create the guiding coalition
3) Develop a vision and strategy
4) Communicate the change vision
5) Empower broad-based action

6) Generate short-term wins
7) Consolidate gains and produce more change
8) Anchor new approaches in the culture

Urgency Before Disaster
1) Radiologists tend to be complacent, in denial, or embarrassed
2) Too often they don’t ask for help until problems have progressed to the point that an RFP is either in process or ready to be sent
3) The best way to prepare for problems is to deal with them as hypotheticals
4) Scenario planning is ideal to do this

Opportunities and Issues
1) Alignment
2) Mergers, affiliations, aggregations
3) Income diversification
4) Service, quality, safety
5) Communication, education

Alignment
Alignment

1) Take sides- our system or theirs
2) Sell your outpatient imaging offices
3) Become employed

SLED DOG ANALOGY

National Entrepreneurial Radiology Companies:

Aggressiveness with a tinge of desperation.

What Do These Companies Offer to a Hospital?

1) Less or no problematic radiologists- if a problem occurs, that radiologist is gone
2) Quality metrics on a monthly basis
3) 24/7 sub-specialty expertise
4) Savings because there is no need for transcriptionists
5) Savings (in the future) on equipment, etc.

Radiologists must offer what these companies offer or risk losing their hospital contracts.

Alternative Payment Models

Fee for service has worked very well for radiologists; however, it is clear that practices (and hospitals) will have to cope with a variety of alternative payment methodologies. Bundled payments, capitation “offshoots”, and ACO options are “just around the corner”.
The concept of “professional payment bundling” is being pushed hard by health care theorists. This will accelerate the move to the employment model.

Hospitals will begin to be more aggressive in pressuring their radiology groups to become employees, and some radiologists willingly agree.

Why will hospitals want to employ radiologists?

Basically, it is easier to split the bundled dollar if everyone is employed. The “trick” for radiologists who want to remain independent will be to have the data and the knowledge necessary to do so.

So, what’s the bottom line for radiology and radiologists in the near future?
In the old days, all we wanted was to get our slice of the pie. Now we have to understand that the pie is going to be smaller, so to stay the same, we will have to get a bit of someone else’s piece. If we want to grow we will have to develop a different type of pie.

In the past, virtually all radiologists were winners (although to different degrees); now and in the future, there will be winners and losers.

In the past, it took work to fail; now and in the future, it will take work to succeed.

Conclusion
1) What we have now is not guaranteed. It will take work and planning to have a successful practice.

2) We have to optimize the operations of our practices (academic and private) to compensate for declining reimbursement.

3) Income diversification will be a must for future success

Conclusion
4) If we continue with “business as usual”, there are others who would gladly take what we have- and they will.

5) We have few friends at the national level; therefore, we must “play by the rules”. PACS involvement is essential.

Conclusion
6) The shift from “volume to value” and from “output to outcomes” is not optional. These phrases describe the inevitable result of alternative payment models. Radiologists will have to be significant or we will be irrelevant.

7) A shift in “culture” is not a luxury; rather, it is an imperative for professional survival.
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