Value-Based Care for Thyroid Cancer in the Setting of Graduate Medical Education

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Call to arms: IOM Reports

<table>
<thead>
<tr>
<th>Safety in Outcomes</th>
<th>Quality</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key: Address gaps in culture Knowledge Skills Cost</td>
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</table>

Healthcare in the United States: Value Proposition and National Consciousness

7.5. Health expenditure as a share of GDP, selected OECD countries, 1980–18

Current levels of healthcare spending remain unsustainable and do not correlate with health outcomes

Deficits in Quality, and Public Trust

Table 5.1: Estimated Source of Excess Cost in Health Care (2018)

<table>
<thead>
<tr>
<th>Category</th>
<th>Sources</th>
<th>Estimate of Excess Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventive Services</td>
<td></td>
<td>$210 billion</td>
</tr>
<tr>
<td>Administrative Services</td>
<td></td>
<td>$20 billion</td>
</tr>
<tr>
<td>Hospital Services</td>
<td></td>
<td>$20 billion</td>
</tr>
<tr>
<td>Prescription Errors</td>
<td></td>
<td>$15 billion</td>
</tr>
<tr>
<td>Nursing Services</td>
<td></td>
<td>$13 billion</td>
</tr>
<tr>
<td>Emergency Services</td>
<td></td>
<td>$7 billion</td>
</tr>
<tr>
<td>Online Services</td>
<td></td>
<td>$3 billion</td>
</tr>
<tr>
<td>Home Health Services</td>
<td></td>
<td>$2 billion</td>
</tr>
<tr>
<td>Health Care Solutions</td>
<td></td>
<td>$1 billion</td>
</tr>
<tr>
<td>Preventive Services</td>
<td></td>
<td>$1 billion</td>
</tr>
<tr>
<td>Secondary prevention</td>
<td></td>
<td>$1 billion</td>
</tr>
<tr>
<td>Primary prevention</td>
<td></td>
<td>$1 billion</td>
</tr>
<tr>
<td>General Practice</td>
<td></td>
<td>$1 billion</td>
</tr>
</tbody>
</table>

Health in the United States: The Third Leading Cause of Death in the US, Killing 225,000 People Every Year
Transforming Culture to Value-orientation

Value = Health outcomes
Costs of delivering the outcomes

Quality
- Efficiency
- Patient adherence
- Compliance

Response
- Quality of life
- Complaints
- Feedback

Safety

Quality & Outcomes

Value = Cost

Patient Volume

Value-based care: It takes a village

Transforming Culture to Value-orientation

Safety

Patient centered care

Quality

Value driven care

Evidence based practice

Why is Graduate Medical Education at the center of this transformation?

Early learning opportunities for engraining a culture of Value Based Care

The Effects of Training Institution Practice Costs, Quality, and Other Characteristics on Future Practice

Trainees that learnt in high cost health systems, Practiced higher cost care delivery

High-Value Care Culture Among the Future Physician Workforce in Internal Medicine

Training institution had bearing on exposure to high-value care culture
Catch ’em young, but how...?

National survey: 370 internal medicine residency training programs

- 85% agreed: GME’s responsibility in cost containment
- 14.5% formal curriculum in cost-conscious care
- 47.5% agreed: Faculty consistently modeled cost-conscious care
- 33.2% residents access to information on costs of tests and procedures

The shift to VBC and consumerism will require new skills

Value-Based Care in Care for Patients with Thyroid Disease: Why Bother?

How Different Doctors Treat Thyroid Conditions

<table>
<thead>
<tr>
<th>OB/GYN</th>
<th>Can focus on thyroid disease and women's hormonal health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Care Physicians</td>
<td>Most likely to be uncomfortable treating endocrine disorders and relying on holistic approach</td>
</tr>
<tr>
<td>Endocrinologists</td>
<td>Treated in internal medicine and endocrinology; most closely aligned with thyroid disease</td>
</tr>
<tr>
<td>Oncologists</td>
<td>Specialize in treating thyroid cancer with medications</td>
</tr>
</tbody>
</table>

Value-Based Care in the United States

Use of Radioactive Iodine for Thyroid Cancer

Variation: Use of Diagnostic/Therapeutic Tools

Aspiring to teach residents value-based care

Ideas and Opinions

Providing High-Value, Cost-Conscious Care: A Critical Seventh General Competency for Physicians

- Comprehension of the importance of evidence-based medicine, clinical epidemiology, and the use of diagnostic and therapeutic tools in the care of patients
- Utilization and communication skills that require effective exchange of information and collaboration among providers, patients, and other healthcare professionals
- Physician behavior and improvement
- Promotion of the ability to evaluate and manage high-risk patients
- Physician performance in collaborative practice
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- Physician performance in collaborative practice

The Otolaryngology Milestone Project
Quality variation: Thyroidectomy specific outcomes

Variation in Therapeutic Choice

Adapted from Owens, D, Qaseem A, Chou R, Shekelle P; Clinical Guidelines Committee of the American College of Physicians. High-value, cost-conscious health care: concepts for clinicians to evaluate the benefits, harms, and costs of medical interventions. Ann Intern Med. 2011 Feb 1;154(3):174-80. [PMID: 21282697]

1. Understand the benefits, harms, and relative costs of the interventions
2. Decrease or eliminate interventions that provide no benefits and/or may be harmful
3. Choose interventions and care settings to maximize benefits, minimize harms, and reduce costs
4. Customize a care plan that incorporates patient values and concerns
5. Identify system-level opportunities to improve outcomes, minimize harms, and reduce waste

Teaching Early: High Value Care Framework

What may work?

1) Effective transmission of knowledge
   - Healthcare economics
   - Scientific guidelines
   - Benefits and harms of healthcare
   - Patient preferences and personal values
2) Facilitate reflective practice: feedback, questions regarding decisions for testing and prescribing
3) Supportive environment
   - Role models that deliver high-value, cost-conscious care
   - System-wide cultural adoption of value-based care

What may work?

Effective transmission of knowledge

- Evidence-based guidelines
- Patient preferences and patient-centered outcomes
- Access to care episodes
- Real-time
- Specific
- Data

Original investigations

Training Physicians to Provide High-Value, Cost-Conscious Care

A Systematic Review


n=79 studies

What may work?

1) Effective transmission of knowledge
   - Healthcare economics
   - Scientific guidelines
   - Benefits and harms of healthcare
   - Patient preferences and personal values
2) Facilitate reflective practice: feedback, questions regarding decisions for testing and prescribing
3) Supportive environment
   - Role models that deliver high-value, cost-conscious care
   - System-wide cultural adoption of value-based care
What may work?  
Effective transmission of knowledge

- Identify the right data
- Measure effectively
- Generate Actionable Insights

Data
- Patient preferences and patient centered outcomes
- Evidence-based Guidelines

What may work?  
Specific Data for Specific Insights

Duration
- Attending Alone
- Attending with Resident

Mean (SD)

Total Operative time (mins)

Resident participation in thyroid surgery results in increased operative duration
- Hemi-thyroidectomy: 11% increase
- Total thyroidectomy: 14.5% increase (unpublished results)

What may work?  
Effective transmission of knowledge

Development of the Methodist Head and Neck Quality Dashboard for Thyroid Surgery

What may work?  
Effective transmission of knowledge

2015 American Thyroid Association Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer
What may work?

1) Effective transmission of knowledge

   - Healthcare economics
   - Scientific guidelines
   - Benefits and harms of healthcare
   - Patient preferences and personal values

2) Facilitate reflective practice: feedback, questions regarding decisions for testing and prescribing

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   - Role models that deliver high-value, cost-conscious care,
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**Training Physicians to Provide High-Value, Cost-Conscious Care**

A Systematic Review

**Virtual Investigation**

n = 79 studies

Facilitate Reflective Practices

Supportive role models & systems
What may work?
Supportive environment
Role models that deliver high-value, cost-conscious care,
System-wide cultural adoption of value-based care

Encourage Critical Appraisal:
- Diagnostic/therapeutic choices
- Impact on care plan
- Cost/Benefits/Harms assessment

Root Cause Analysis to Identify Actionable Processes: Streamlining Variability

Rely on Best Available Evidence
To Guide Clinical Pathways and Protocols

Case Study:
Multimodal analgesia in head and neck endocrine surgery

Specific value-based care interventions produce measurable cost benefits
An Epidemic of Drug Overdose Deaths in the United States

Feasible and Safe
Low pain perception scores
High patient satisfaction with MMA (88%)
Most patients avoided opioid prescriptions (61%)

Adoption of Multimodal Analgesia & Changes in Prescribing Practices

Key question:
In outpatient head and neck surgery, does institutional availability of MMA pathway influence:

1) Adherence to such pathways?
2) Frequency of opioid prescriptions at discharge?

- Thyroidectomy
- Parathyroidectomy

Opioids, Multimodal Analgesia and We

Getting started with MMA
- Study own institutional experience
- Use published guidelines and resources
- Find institutional champions and collaborators
- Create an institutional plan, execute & measure outcomes
Value-Based Care: Bringing it all together

Comprehensive Learning Resources
Sustained Practice Improvement

Healthcare in the United States: Value Proposition and National Consciousness

Current levels of healthcare spending remain unsustainable and do not correlate with health outcomes.

Deficits in Quality, and Public Trust

- Data
  - Across care episodes
  - Real-time
  - Specific

Evidence-based Guidelines

Patient preferences and patient-centered outcomes

Facilitate Reflective Practices
Supportive role models & systems

Angela Osmolak, MD

Head and Neck Surgical Oncology Team

Thank you