Improving Healthcare Delivery in Kidney Cancer

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Background & Rationale

- Driven by various stakeholders (third-party payers, health systems, patients, and health care providers), much greater emphasis on increasing value in healthcare.

- These efforts include the development of quality indicators for many disease processes and clinical care scenarios.

- Up to 50% of healthcare reimbursement is expected to be linked to alternative payment models by 2018.

Value = \frac{\text{Quality} \times \text{Appropriateness}}{\text{Cost}}
Variability
Core principle of QI; IDs areas for improvement

PSA testing, ages 68-74

No or Delayed Tx, Medicare >75

Prostatectomy, Medicare

4% - 58%
Variability and Management of Renal Cancer

- Renal mass / kidney cancer: common problem with increasingly complex management algorithms
- Range in concern from non-clinically-significant to life-threatening
- Evaluation and management varies patient-to-patient and system-to-system
- Variability: there are several areas that could benefit from quality improvement (QI) work

Just considering small renal masses (SRM):
- Utilization of percutaneous biopsy for SRM
- Utilization of Active Surveillance (vs Rx) for SRM
- Optimal imaging (US vs CT vs MRI) during AS
- Management of SRM (PN vs RN vs ablation)
- Follow-up imaging and surveillance for treated patients
... not to mention management of larger or metastatic RCC
Differential Use of Partial Nephrectomy for Intermediate and High Complexity Tumors May Explain Variability in Reported Utilization Rates


Figure 2. PN use by individual surgeons (A, B, C, D, E, G, H, I, J, Q, R, S and U) according to RNS
Surgeon factors affect PN vs. RN: SEER-Medicare and Survey data

- Surgeon Age \([>50 \text{ yrs vs. } 41-50 (1.33) \text{ vs. } <40 (1.89)]\)
- Surgical Volume \([\text{Low vs. Mod (1.22) vs. High (2.08)}]\)
- Fellowship \((1.64)\)
- Use of PN \([0\% \text{ vs. } 1-25\% (1.43) \text{ vs. } 26-50\% (2.09) \text{ vs. } >50\% (4.36)]\)
- Practice \([\text{Private vs. Community (1.44) vs. Academic (2.05)}]\)

Practice-setting and surgeon characteristics heavily influence the decision to perform partial nephrectomy among American Urologic Association surgeons

Christopher J. Weight, Paul L. Crispen*, Rodney H. Breau*, Simon P. Kim, Christine M. Lohse*, Stephen A. Boorjian, R. Houston Thompson and Bradley C. Leibovich
## Hospital/System-based Factors Affect PN vs. RN

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Variability in Management of Metastatic RCC

Demonstrated for:

• Receipt of systemic therapy
• Type of systemic therapy
• Receipt of cytoreductive surgery

• Non-cancer-specific predictors are highly significant
  • Hospital size and type
  • Household income
  • Etc.
How Can We Move Forward? Improve?

“Insanity: doing the same thing over and over again and expecting different results” – Albert Einstein

• Current models: descriptive analyses of variability
  • Retrospective, data query, etc.

• Clinical Trials
  • Evidence-based medicine; highest level of proof

• Collaborative Quality Improvement (CQI)
  • Understand and capitalize on variability
Building a Regional Quality Collaborative: Lessons from the MUSIC Experience
Collaborative Quality Improvement and Urology

• Prior to 2010, limited urologist participation in CQI’s
• For many years, BCBSM has financially supported physician-led efforts to improve quality and cost-efficiency across a wide range of specialties and conditions
• Surgical collaboratives were primarily hospital-based, whereas most urological care is provided in an ambulatory setting
Blue Cross Blue Shield of Michigan's health care quality efforts with hospitals save more than $232 million statewide over three-year period

Programs are lowering costs while leading Michigan to a healthier, safer future through hospital collaborations

DETROIT — Over a three-year period, four programs sponsored by Blue Cross Blue Shield of Michigan to improve the quality of common medical procedures performed in Michigan hospitals have produced $232.8 million in health care cost savings and have improved coordination and quality,节省了数千万元。

Cost savings for the four programs studied break down as follows:

- **Michigan Surgical Quality Collaborative (general surgery)**
  - 2009-2010: $65.9 million statewide savings; $49.2 million BCBSM savings
- **Michigan Society of Thoracic and Cardiovascular Surgeons Quality Collaborative (cardiac and thoracic surgery)**
  - 2009-2010: $30.3 million statewide savings; $2.4 million BCBSM savings
- **BCBSM Cardiovascular Consortium (angioplasty)**
  - 2009-2010: $102 million statewide savings; $13.8 million BCBSM savings
- **Michigan Bariatric Surgery Collaborative (bariatric surgery)**
  - 2009-2010: $14.6 million statewide savings; $4.7 million BCBSM savings

Egyptians Vote In Rare Chance To Pick Leader
With Real Hope To Play Millions More Out

Cabinet To Move

New Fuel for Cutting Costs Among Hospitals and Insurers

Drug Trafficking and Reid’s Stir Danger on the Mosquito Coast
How does it work?

• Annals Of Medicine, New Yorker Oct 3, 2011

PERSONAL BEST  Top athletes and singers have coaches. Should you?

By Atul Gawande

We don’t have that luxury of a coach (for technique or decision-making) once we finish residency. Hence the beauty of a collaborative
MUSIC Operating Principles & Playbook

- Collegial
- Non-competitive
- Evidence-based
- Confidential
- No “billboards”
- Actionable data
- Focus on effectiveness
- Make a contribution
- No secrets

Data → Information → Action → Outcomes
A Pathway Forward

Evidence-based medicine

Clinical Experience

Collaborative physician learning

Vision: Making Michigan #1 in Kidney Cancer Care
Proposal: MUSIC-Kidney

We are proposing to begin with management of SRM

• Evaluate appropriateness of radiological assessment of incidentally detected SRM

• Study utilization of biopsy in categorizing SRM
  • Accuracy, complications, variation

• Use of active surveillance in SRM management

• Decision-making in directing surgical and percutaneous treatment of SRM

• Evaluate follow-up protocols for SRM (frequency, type of imaging, labs, etc.)
Conclusions

• Healthcare delivery extends beyond individual patient-physician relationships
• Tremendous variability exists in the care each kidney cancer patient receives
• Collaborative quality improvement (CQI) is a tested and proven way to provide value in healthcare

• Physician collaboratives appear to be a solid choice to improve healthcare delivery in kidney cancer

Acknowledgements:
David Miller and the rest of the MUSIC team